



A HANDBOOK
OF
BRITISH BIRDS

J. E. HARTING



1. 2. 2a. Peregrine, old, young & foot. 3. Gyr-falcon. 4. Hobby. 5. 6. Merlin, ♂. ♀. 7. 8. Kestrel, ♂. ♀.
9. 10. 10a. Goshawk, old, young & foot. 11. 12. 12a. Sparrowhawk, old, young & foot.

1724 Collected
A HANDBOOK
OF
BRITISH BIRDS

SHOWING THE DISTRIBUTION OF THE RESIDENT
AND MIGRATORY SPECIES IN THE
BRITISH ISLANDS

59.82(42)

WITH
AN INDEX TO THE RECORDS OF THE RARER VISITANTS

BY
J. E. HARTING, F.L.S., F.Z.S.

MEMBER OF THE BRITISH ORNITHOLOGISTS' UNION

NEW AND REVISED EDITION

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INTRODUCTION

FOLLOWING upon the daily exigencies of official work, the preparation of this volume has occupied the leisure hours of many years, and as an attempt to show in one volume the precise status of every so-called British bird, distinguishing the rare and accidental visitors from the residents and annual migrants, it conveys information of a kind which is not to be found in any other work on British birds. Divided into two parts, the first portion deals with "British Birds properly so called, being residents, periodical migrants, and annual visitants;" the second portion includes the "Rare and accidental visitants," and a special feature of the book is that in the case of every rare bird a list of occurrences is given, from the publication of the earliest records (so far as has been ascertained) down to the end of the year 1900. The reader is thereby enabled to estimate at a glance the precise nature of the claim which any given species has to be considered "British." Some notion of the labour entailed may be formed when it is stated that the number of references in Part I. amounts to 1500; in Part II. to 2325, and in the whole work to 3825, or thereabouts.

The measurements of every species are given in four dimensions, namely, the length from tip of bill to end of tail; length of bill; length of wing from carpal joint to end of the longest primary; and length of leg, or rather the exposed portion of it (the tarsus) which is most readily seen. In some instances a fifth dimension is given, as in the case of the Godwits, the Avocet, and some of the Sandpipers, where the bare portion of the tibia is considerable, and serves as a mark of distinction. In all cases where it has been possible to obtain them, the measurements (about 1600 in all) have been taken during the course of many years from freshly killed specimens, and the importance of this is especially noteworthy in the case of the rarer foreign visitants, specimens of which are seldom available for examination in a fresh state, and are usually reported after the skin has shrunk in drying, and the colours of the soft parts have faded beyond recognition. Thus, in the case of the American Yellow-shanked Sandpiper (*Totanus flavipes*), the entire length of the bird, ascertained from American skins in the British Museum collection, is catalogued as 9 in., whereas the length of a freshly killed specimen shot in Cornwall was found to be 10·75 in.; the latter measurement, consequently, has been preferred. It is well to bear this fact in mind when comparing the measurements set down in the following pages with those given elsewhere, should any marked discrepancy be observable, though it will be

seen that this applies chiefly to the length of a bird in the flesh, since the other dimensions of bill, wing, and tarsus are not liable to greater variation than arises from a difference of age or sex. Where this is considerable, as in the case of the Eagles, Falcons, Hawks, Black Grouse, Pheasant, Bustard, Curlew, Godwit, and some others, the dimensions of both male and female are given, and in many cases the expanse of wing has been added, as well as the weight of both sexes.

It has been the practice of the author for very many years to measure and weigh the game birds and wild fowl shot by him in order to ascertain the average and relative dimensions of each species, and this plan has been also adopted when rare birds shot by other persons have been obligingly forwarded for examination.¹ These particulars were not given in the former edition of this "Handbook," but are now published as a useful addition to the volume.

As for the illustrations, they may be said to speak for themselves. They have been executed in response to a repeated demand for a book on British birds with accurately coloured plates *in one volume*. This the booksellers have been hitherto unable to supply, the expensively coloured works of Gould and the late Lord Lilford each costing not less than forty guineas, being altogether beyond

¹ Here it may be well to correct an error which appears on page 209. The expanse of wing in the Glossy Ibis measured was 33 in., not 36 in., and the weight $12\frac{1}{2}$ oz., or about that of a partridge.

the reach of those who cannot afford to pay more than forty shillings for their *desideratum*. It is obvious that if the whole bird were figured, instead of merely the head and foot as here shown, it would be not only impossible to produce the work in one volume, but impossible also to produce it at the price. Such a departure from the plan would defeat the object in view. Equally impossible has it been found to deal with many a point of interest except by reference to volumes and pages wherein information on the subject may be found. The author has had constantly to bear in mind that his volume is intended merely as a "Handbook" and not a "History." Had it been otherwise, and the cost of production of no importance, it is certain that the materials which have been collected during the past thirty years, and now only partially utilised, would have sufficed to fill three goodly volumes. In view, however, of the admirable fourth edition of Yarrell's "British Birds," which was not completed until 1885, Mr. Saunders' excellent "Manual," now in a second edition, and the late Mr. Seebohm's volumes on "British Birds and their Eggs," such amplification seemed uncalled for, and accordingly the contents of the present volume have been compressed. Nevertheless the number of pages in the first edition has been trebled, and the plates have been added, so that the difference in bulk is considerable. In a great measure this has been due to

the increased number of records of new or rare species which have been collected during the past thirty years, and to the enormous additions to the literature of the subject which have been made during the same period.

Since the first edition of this "Handbook" was published in 1872, the following species have been added to the list of so-called "British Birds," though all have not equal claims to be thus designated:—

<i>Falco gyrfalco</i> , 4	<i>Tichodroma muraria</i> , 4
„ <i>ceenchris</i> , 6	<i>Emberiza cioides</i> , 1
<i>Elanus cæruleus</i> , 1	<i>Fringilla serinus</i> , 15
<i>Lanius major</i> , 5	<i>Carduelis tristis</i> , 1
„ <i>meridionalis</i> , 1	<i>Linota exilipes</i> , 1
<i>Turdus migratorius</i> , 4	<i>Zonotrichia albicollis</i> , 3
<i>Saxicola stapazina</i> , 1	<i>Caprimulgus ægyptius</i> , 1
„ <i>isabellina</i> , 1	<i>Charadrius fulvus</i> , 2
„ <i>deserti</i> , 3	„ <i>dominicus</i> , 3
<i>Sylvia nisoria</i> , 12	<i>Chætusia gregaria</i> , 2 ¹
„ <i>subalpina</i> , 1	<i>Eudromias asiaticus</i> , 1
<i>Phylloscopus proregulus</i> , 1	<i>Tringa acuminata</i> , 2
„ <i>viridanus</i> , 1	„ <i>bairdi</i> , 1
„ <i>schwarzii</i> , 1	<i>Butorides virescens</i> , 1
<i>Hypolais polyglotta</i> , 1	<i>Colymbus adamsi</i> , 3

¹ By an oversight only one instance of the occurrence of *Chætusia gregaria* has been noted (p. 414). Another should be added, namely a specimen procured near Navan, Co. Meath, Aug. 1, 1899. This will be found recorded in the *Irish Naturalist*, 1899, p. 233, with a photograph of the bird which was subsequently exhibited at a meeting of the British Ornithologists' Club, Nov. 22, 1899.

Similarly, a third example of *Puffinus assimilis* may be noted (p. 486), one having been picked up, exhausted after a gale, at Bexhill, Sussex, on Dec. 28, 1900. *Bull. Brit. Orn. Club*, Feb. 13, 1901. This fact was made known too late for insertion in its proper place.

Sterna anæsthesia, 1
 (doubtful)
Puffinus assimilis, 3
 „ *griseus*, 13

Procellaria castro, 1
 (picked up dead)
Pelagodroma marina, 2
 (one found dead)

Of the foregoing thirty odd species, the majority of those which have occurred but once in so many years, *e.g.* *Elanus cæruleus*, *Lanius meridionalis*, *Sylvia subalpina*, *Phylloscopus viridanus*, *Emberiza cioides*, *Butorides virescens*, *Sterna anæsthesia*, and *Pelagodroma marina*, are mere waifs and strays, and may never occur again. Of the rest, a few may possibly do so, either because they are migratory over an extensive area, or because their breeding haunts are not too remote from the British Islands. In the former of these two categories might be placed *Falco gyrfalco*, *Lanius major*, *Turdus migratorius*, *Charadrius fulvus*, and *Tringa acuminata*; in the latter, *Sylvia nisoria*, *Fringilla serinus*, *Linota exilipes*, *Puffinus assimilis*, and *P. griseus*. The appearance of the two small American land birds *Carduelis tristis* and *Zonotrichia albicollis* is probably attributable to their having escaped from captivity.

One of the most noteworthy facts marking the progress of ornithology in England during the last quarter of a century, has been the repeated detection in the eastern counties of many species of small warblers from the Continent which make their appearance in autumn, and may perhaps be found to do so annually now that they have been

clearly recognised. The names of these, with the dates of their occurrence, will be found in Part II. of this volume, pp. 354–362.

As for the additions which have been made to the literature relating to British Birds during the period referred to, the steady progress which has been made in the publication of County Avifaunas has been most remarkable, and very few counties now are without one or more ornithological recorders.

It may serve a useful purpose to give here a list of such books as have been published since 1872 on the birds of particular counties or portions of counties, and larger areas within the British Islands, if only to show the progress which has been made in the exact study of British Ornithology, a fashion which was inaugurated in 1866 when the publication of the “Birds of Middlesex” and the first volume of the “Birds of Norfolk” paved the way for an investigation of the avifauna of other counties. Arranging them alphabetically, the following works have appeared since the former edition of this “Handbook” was published :—

ARGYLL AND THE INNER HEBRIDES, Harvie-Brown and Buckley, 1892.

BEDFORDSHIRE, Steele Elliott, 1897–1901. In progress.

BELFAST LOUGH, Lloyd-Patterson, 1880.

BERWICKSHIRE, Muirhead, 2 vols. 1889–95.

BRECONSHIRE, Phillips, 1882, 2nd ed. 1899.

CAITHNESS, Harvie-Brown and Buckley, 1887.

CARDIGANSHIRE (Aberystwith), Salter, 1900.

- CHESHIRE (West, Denbigh and Flint), Dobie, 1894.
 „ Coward and Oldham, 1900.
 CORK, Ussher, 1894.
 CORNWALL, Rodd (ed. Harting), 1880.
 CUMBERLAND, Macpherson and Duckworth, 1886.
 „ (Lakeland), Macpherson, 1892.
 „ (Derwent Valley), Robson, 1896.
 DENBIGHSHIRE, Dobie, 1894 (*see* Cheshire).
 DERBYSHIRE, Whitlock, 1893.
 DEVONSHIRE, Parfitt, 1876.
 „ Pidsley (ed. Macpherson), 1891.
 „ D'Urban and Mathew, 1892.
 „ Evans (H. M.), 1897.
 DORSETSHIRE, Mansel-Pleydell, 1888.
 DUBLIN, More (Guide), 1878.
 DURHAM, Hancock, 1874 (*see* Northumberland).
 ESSEX, Miller Christy, 1890.
 FLINTSHIRE, Dobie, 1894 (*see* Cheshire).
 GLAMORGANSHIRE, Nicholl, 1889.
 „ Drane and others, 1899.
 GLOUCESTERSHIRE, Witchell, 1892.
 GUERNSEY, Cecil Smith, 1879.
 HAMPSHIRE, Kelsall (List), 1890.
 „ (Christchurch), Hart, 1895.
 HEBRIDES (Outer), Harvie-Brown and Buckley, 1888.
 „ (Inner), same authors, 1892.
 HEREFORDSHIRE, Bull, 1888.
 „ Horne (List), 1889.
 HERTFORDSHIRE, Crossman (List), 1898.
 HUMBER DISTRICT, Cordeaux, 1872; List, 1899.
 IONA AND MULL, Graham, 1890.
 IRELAND, Annals of Irish Zoology, Harting, 1881.
 „ Irish Song Birds, Benson, 1886.
 „ List of Irish Birds, More, 1885, 2nd ed., 1890.
 „ Breeding Range of Irish Birds, Ussher, 1894.
 „ Migration of Birds, Barrington, 1900.
 „ Birds of, Ussher, 1900.

- KENT (East), Dowker (List), 1889.
„ (Rainham), Prentis (List), 1894.
LAKELAND, Macpherson, 1892.
LANCASHIRE, Mitchell, 1885; 2nd ed., Saunders, 1892.
LEICESTERSHIRE AND RUTLAND, Browne, 1889.
MIDDLESEX (Hampstead), Harting, 1889.
„ (Harrow), Barrett-Hamilton, 1891.
MORAY BASIN, Harvie-Brown and Buckley, 1895.
NORFOLK, Lubbock (ed. Southwell), 1879.
„ Gurney (Catalogue), 1884.
„ (Harleston) Candler, 1888.
„ Stevenson (vol. 3, ed. Southwell), 1890.
NORTHAMPTONSHIRE (Notes), Lilford, 1880–83.
„ Birds, 2 vols., Lilford, 1895.
NORTHUMBERLAND AND DURHAM, Hancock, 1874.
NOTTINGHAMSHIRE, Sterland and Whitaker, 1879.
OXFORDSHIRE, Aplin, 1889.
ORKNEY, Buckley and Harvie-Brown, 1891.
PEMBROKESHIRE, Murray Mathew, 1894.
RUTLAND, Browne, 1889 (*see* Leicestershire).
SCOTLAND (West), Gray, 1871.
„ Notes on Fauna, Gray and Alston, 1876.
SHETLAND, Saxby, 1874.
„ Evans and Buckley, 1899.
SHROPSHIRE, Beckwith, 1879.
„ Paddock, 1897.
„ Forrest, 1899.
SOMERSETSHIRE, Mathew (revised list), 1893.
STAFFORDSHIRE, McAldowie, 1893.
SUFFOLK, Churchill Babington, 1886.
SURREY, Bucknill, 1900.
SUSSEX (parish of Harting), Gordon, 1877.
„ Borrer, 1891.
SUTHERLAND AND CAITHNESS, Harvie-Brown and
Buckley, 1887.
WESTMORLAND (Lakeland), Macpherson, 1892.
WILTSHIRE (Salisbury), Morres, 1878–85.

WILTSHIRE, A. C. Smith, 1887.

WORCESTERSHIRE, Willis Bund (List), 1891.

YORKSHIRE (Wakefield), Talbot, 1877.

„ (Vertebrata), Clarke and Roebuck, 1881.

„ (Aekworth), Arundel, 1898.

In addition to these county histories we have to take into account the publication of such important works as Professor Newton's "Dictionary of Birds" (1893-96); the late Herr Gätke's "Birds of Heligoland" (1895), embodying a vast number of observations on the migratory species which visit the British Islands; the "Reports on Migration," published by the British Association Committee appointed to collect statistics from the keepers of lighthouses and lightships around the coasts of Great Britain and Ireland, with Mr. Eagle Clarke's admirable Summary of the series; Mr. R. M. Barrington's monumental volume dealing with the "Migration of Birds in Ireland," and the recently published work by Messrs. Ussher and Warren on the "Birds of Ireland," so long expected and so extremely welcome.

An examination of all these works, embodying, as they do, an enormous number of facts relating to British birds, and a search through all the periodicals which will be found mentioned in the following pages, have resulted in the accumulation of a mass of notes which it has not been possible to compress into a volume of even 600 pages, although space has been saved by omitting the geographical distribution of all but the rarer visitants beyond the

limits of the British Islands, a branch of the subject which has been thoroughly dealt with in the pages of Yarrell and Saunders. As for facts bearing on the life-history of the species enumerated, it has been thought better to avoid the repetition of statements which have been already made in the two works just mentioned, and in lieu thereof to publish original observations on points not previously elucidated. To do this at any length was found impossible, for the considerations above mentioned, and where want of space has precluded the discussion of interesting problems, reference has been made to volumes and pages where fuller information may be obtained. In this way it is hoped that the utility of this "Handbook" has been enhanced to an extent not contemplated in the former edition.

It remains to add a few words on the important subjects of Classification and Nomenclature. It is unnecessary to examine and contrast the various systems of classification which have been put forth from time to time by writers on ornithology, for this has already been done by Professor Newton in the exhaustive Introduction to his "Dictionary of Birds." No more can be expected of the present writer than to give reasons for the faith that is in him. Suffice it then to say, that although to disciples of the modern school it may appear old-fashioned to adopt a scheme of classification which, commencing with the birds of prey, followed by the

passerine and picarian forms, and proceeding to the pigeons and game birds, passes by easy transition *viâ* the grallatorial birds to the aquatic wild-fowl and sea-fowl, it is nevertheless a scheme which has received the sanction of leading ornithologists in England, France, and Germany, to say nothing of other nations. The most striking character which distinguishes birds from all other vertebrates (save the *Chiroptera*) is the power of flight, and since that peculiarity is most highly developed in the Falcons, which are able to overtake and capture the fastest birds upon the wing, not even excepting Swallows and Swifts, it seems not unreasonable on this account, if for no other, to place the raptorial birds as the highest type of the class *Aves* at the head of any scheme of classification. So thought Linnæus and Cuvier, and long before their time so thought Willughby and Ray. This view has been shared by many English writers of the past and present centuries:—Bewick,¹ Selby, Jenyns, Eyton, Macgillivray, Jardine, Hancock, Gould, Gurney, Stevenson, Cordeaux, Rodd, Mansell Pleydell, Borrer, A. C. Smith, and others whose names with ornithologists are “household words,” not overlooking the views of Professor Newton as indicated in the fourth edition of Yarrell’s well-known work,

¹ Many people are perhaps unaware that Bewick did not write the letterpress of the work so beautifully illustrated by him, and his views, if he had any, on classification can only be inferred on the assumption that he sanctioned the arrangement of his woodcuts by his coadjutor, Beilby.

and those of Dr. Bowdler Sharpe as set forth in the first volume of the "Catalogue of Birds in the British Museum."¹

Leading ornithologists in America, including Messrs. Allen, Brewster, Chapman, Coues, Hart Merriam, and Robert Ridgway, have given their sanction to a scheme of classification which commences with the *Pygopodes* (Grebes, Divers, and Auks), and ends with the *Passeres* (family *Turdidæ*), a plan which has been more recently adopted by Mr. A. H. Evans in his volume on Birds in the "Cambridge Natural History" (1899), although he prefers to end with the *Fringillidæ* and *Emberizidæ*, between which and the *Turdidæ* he would interpose the Dippers, Wrens, Swallows, Shrikes, Tits, Orioles, Crows, Starlings, and other families.

In 1892, when the authorities of the U.S. National Museum, Washington, had to give instructions for the systematic arrangement of the series of mounted birds at the Chicago Exhibition, a collection which numbered some 1300 specimens, representing all the families (104) found in the

¹ It is but fair to Dr. Sharpe to state that he does not now adhere to the views held by him in 1874, the date of the catalogue referred to, but, to judge by his treatise on "British Birds," published in Allen's "Naturalist's Library" (reviewed by me in *The Zoologist* for Dec. 1894), he prefers to commence with the Crows, and in this he has been followed by the late Dr. Mivart ("Elements of Ornithology"), while several of his contemporaries, though agreeing with him that the Passerine birds should head the list in any scheme of classification, consider that the Thrushes, as typical song birds, should take precedence of all others.

Western Hemisphere, it was decided to commence with the Finches (*Fringillidæ*), followed by the *Icteridæ*, *Sturnidæ*, and *Corvidæ*, and ending with the Grebes, Penguins, and Tinamus, the last-named family, *Tinamidæ*, connecting the carinate birds with the ratite *Rheidæ*. In this scheme the Thrushes, which certain modern writers place at the head of the class *Aves*, stand 22 on the list, separating the Swallows (8) by a long interval from the Swifts (36), which are immediately preceded by the Humming-birds (35). The Owls follow the Cuckoos, and are succeeded in their turn by the Osprey, Buzzards, Eagles, and Falcons, followed by the Pigeons, Curassows, and Game-birds in the order named.

In the wide separation of the Swallows from the Swifts here proposed, although it has the approval of my friend Mr. Saunders, I am wholly unable to agree, being convinced, for reasons hereinafter stated (pp. 108-109), that, in the words of the late Professor W. K. Parker, "The Swallow and Swift are near akin." In addition to what will be found stated at the pages just indicated, it may be remarked that Mr. F. A. Lucas, in an instructive paper on the Tongues of Birds (Report U.S. Nat. Mus., 1895, pp. 1001-1019, with two plates) remarks :—

"The tongues of the Swifts have a very close resemblance to one another, as do those of the Swallows, and the two groups are so much alike

in this respect that it is extremely difficult, if not impossible, to tell them apart." From an examination of the osseous structure of both, I am convinced of the justice of Huxley's surmise that Swifts would be found some day to be nothing more than profoundly modified Swallows, having no more affinity with the Humming-birds than these latter.

Having regard, then, to the diversity of opinion existing with respect to Classification, I see no advantage to be derived by departing from that adopted in the former edition of this "Handbook." This, as above shown, has met with such general approval that I have only so far modified it as to mark the separation of the *Passeres* from the *Picariæ* by placing them in separate Orders, yet so as to bring the families *Hirundinidæ* and *Cypselidæ* close together, the latter being followed (as in the former edition) by the *Caprimulgidæ*. A further modification will be noticed in bringing together the Cranes and Bustards in the Order *Alectorides* (as seems warranted by a more complete acquaintance with their structure and habits, their mode of nidification, and the resemblance of their eggs and young), the inclusion of the Ibis, Spoonbill, Storks, and Herons in one and the same Order *Herodiones*, and the separation of the Petrels (*Tubinares*) from the Terns, Gulls, and Skuas.

In regard to the subject of Nomenclature, it

may be remarked that when in 1878 a Committee of the British Ornithologists' Union was formed "to draw up a List of British Birds in accordance with the most approved principles of modern classification," the Committee did me the honour to include the first edition of this "Handbook" amongst the eight works selected for reference, and it was gratifying to find, when their "List of British Birds" was printed in 1883, that the majority of the names which I had employed were approved and adopted, while in a few cases where a change was made, as, for example, in the case of the Purple Sandpiper (see p. 189), I was subsequently able to show that the alteration proposed was not warranted by the facts.

The increasing practice of changing well-known names for newly discovered ones on the ground of priority, I regard as a misfortune to science; for there is no finality in such a proceeding, and never likely to be.¹ It seems to me far less confusing and embarrassing to adhere to names with which most naturalists have been for years familiar, than to adopt others which, to the majority of people, must be quite unknown. Moreover, having in my first

¹ In 1872 I thought otherwise, and then hoped that a gradual acceptance of the Rules for Zoological Nomenclature devised by a Committee of the British Association might have led to the general adoption of a uniform system. But I had then no notion of the lengths to which changes of name would be carried, and the subsequent experience of thirty years has convinced me of the futility of attempting to carry out such a scheme as that proposed, which it is now evident can only result in hopeless confusion.

edition employed familiar names which have been since approved by the Committee of the B.O.U., I see nothing to be gained by the substitution of others which would obviously hinder a comparison of the elements of the British avifauna as viewed from past and present standpoints.

Of course, when an obvious mistake can be shown to have been made in attempting to identify a species from an imperfect description, a change in the nomenclature might be desirable, but when a name, published with a recognisable description, has become familiar by long usage there seems no good reason for disturbing it. Still less justifiable does it seem to adopt on the score of priority from a mere Catalogue (such as that of Tunstall or Leach) a bare name to which no description of any sort is appended.

With these brief remarks on nomenclature, we may pass to a consideration of the terms employed to designate the various groups of birds which are placed in Parts I. and II. of this "Handbook." Of the total number of species enumerated 130 are residents, 100 periodical migrants, and 32 annual visitants, the remainder (167) being rare and accidental wanderers.

As RESIDENTS are included those species which rear their young annually in the British Islands, and are to be found in some part or other of the United Kingdom *throughout the year*. Of these many are partially migratory, as, for instance, *Falco*

æsalon and *tinnunculus*, *Otus brachyotus*, *Turdus musicus*, *T. torquatus*, *Regulus cristatus*, *Motacilla lugubris*, *Linota cannabina* and *L. flavirostris*, *Corvus frugilegus* and *C. cornix*, *Columba palumbus*, *Charadrius pluvialis*, *Tringa alpina*, *Scolopax rusticula*, *Gallinago media*, and others. Nevertheless, as specimens of all may be found here during every month in the year, they may be regarded for all practical purposes as residents.

PERIODICAL MIGRANTS are those which visit us annually and regularly at particular seasons, and whose advent and departure may be dated in advance with considerable precision. Of these we have familiar examples in *Philomela lusciniæ*, *Cuculus canorus*, and the *Hirundines*, which come here for the summer, and *Turdus iliacus* and *pilaris*, which spend the winter with us; while others, like most of the Sandpipers, perform a double migration and pass through the country twice a year, viz., in spring and autumn.

The ANNUAL VISITANTS comprise those which occur in some part of the British Islands annually, but in comparatively limited numbers, and at irregular and uncertain intervals. The month in which any of them may be expected may be named; but the uncertainty of their arrival in any particular district precludes their being placed with the Periodical Migrants. Amongst these may be mentioned *Oriolus galbula*, *Regulus ignicapillus*, *Ampelis garrulus*, *Emberiza lapponica*, *Linota linaria*, *Pastor*

roseus, *Upupa epops*, *Coracias garrula*, *Merops apiaster*, *Recurvirostra avocetta*, *Ciconia alba*, *Grus cinerea*, *Ædemia fusca*, *Sterna dougallii*, and *Larus minutus*.

The RARE AND ACCIDENTAL VISITANTS form a large proportion of the total number of species in the British list, comprising 167 out of 429, or nearly one-third of the whole. But of these at least one-fourth (distinguished by an asterisk in the "Summary," pp. 495-508) may be regarded as having no proper title to be styled "visitants" in the sense of "continuing to visit." For many of them have not been noticed oftener than once or twice, while others have been evidently escaped cage-birds, or foreign specimens palmed off as "British" by unscrupulous dealers. Such birds as Crowned Cranes, Flamingoes, Spur-winged Geese, Carolina Teal, Purple Gallinules, and other "menagerie birds" found wandering at large have obviously no place in the British Ornis, while Albatrosses, Sheathbills, Cape Pigeons, and dead Petrels washed ashore after long immersion may well be relegated to an independent category of ocean waifs and strays.

It is extremely difficult to believe that the non-aquatic visitors, which are natives of America, have actually journeyed across the Atlantic, and performed a voyage of at least 1700 nautical miles on the shortest route, *via* Newfoundland; but that many of them have actually done so seems proved by

the fact that they have not been met with in Greenland, Iceland, and the Farøe Isles—the only countries through which they would otherwise have passed by a change of route—and many which have thus found their way to England or Ireland (as, for example, *Agelæus phæniceus*, *Coccyzus americanus* and *erythrophthalmus*, *Ægialitis vocifera*, *Totanus solitarius*, *Tringa bonapartii*, *Botaurus lentiginosus*, and others) have not been met with in any part of the European continent. As might be expected, at least half the American species found in this country belong to the orders Limicolæ and Anseres, while of the smaller Passerine birds, none of them, with the exception of *Agelæus phæniceus*, has occurred half a dozen times. This plainly shows that their appearance on this side of the Atlantic is the merest accident, and not the result of any continued and successful attempt at migration. In some instances at least it is not unreasonable to suppose that these small birds must have availed themselves to some extent of the rigging of passing vessels, or have been brought to this country in cages, from which they have been allowed, accidentally or designedly (*vide* pp. 333, 362), to escape; and there are many birds, for example the Woodpeckers, whose importation in cages is rarely, if ever, attempted.

Those who find it difficult to believe in the appearance of *Picus martius* in England after so short a journey as the passage of the German

Ocean, must feel still greater difficulty in admitting the claims of any American members of this family to a place in the British list: and yet there are records of the capture of no less than three different species in England (*vide* pp. 398, 399), all of which are inhabitants of the New World.

In attempting to ascertain the claims of such species as these to be admitted in a list of British birds, there are two difficulties which constantly beset the conscientious historian who meets with records of their capture here. These are: first, the published communications of over-zealous collectors, who, anxious to record their possession of a species which they deem rare, hasten to give it a name before they have satisfactorily identified it; and, secondly, the results of the many attempts which unscrupulous dealers make (unfortunately too often with success) to palm off foreign species upon unwary collectors, with the assurance that they have been killed in some part or other of the British Islands. There can be little doubt that many of such records, to which of necessity reference has been made in the second part of this work, are, for the reasons above mentioned, worthless, although perhaps originally published in perfect good faith by the owners of the specimens. It has been practically impossible, through lapse of time, death of parties, or ignorance of their addresses, to test the value of every reported occurrence of rare visitors; yet, whenever this was possible, it has been

done, and sometimes with the best results. In cases where this could not be effected, the name of the recorder may often be taken as a sufficient guarantee for the genuineness of the record; and it would be obviously unfair to omit all mention of a report because the truth of it could not now be satisfactorily ascertained. Further than this, it has been deemed more prudent to notice *erroneous* reports for the sake of showing them to be so, than to incur a risk of being supposed to have overlooked them by omitting all allusion to their existence.

It has been already stated that in order not to extend the limits of this book unreasonably by going over ground which has been already well worked, many details as to haunts and habits have been purposely omitted. Nevertheless, in a search for what has been really required, it has frequently happened that important essays and short notices of a valuable nature have been met with; and to preserve a note of these for future reference has appeared almost as desirable as to index the records of rare visitants. On this account therefore, and especially when they have not been alluded to in the standard works before mentioned, a brief reference to volume and page has been given, the object being to save time and trouble to the reader by referring him direct to valuable sources of information which might otherwise be unknown or overlooked.

In bringing this Introduction to a close, I

cannot withhold some expression of my indebtedness to my friends Professor Newton, Mr. Howard Saunders, and Mr. J. A. Harvie-Brown, all of whom have been kind enough to revise "proof-sheets" submitted to them, and to make many useful suggestions and corrections. My obligations to Messrs. Harvie-Brown and Buckley for the information derived from their beautiful volumes on the "Vertebrate Fauna of Scotland," and to Messrs. Ussher and Warren for the many facts gleaned from their "Birds of Ireland," will be perceived from the frequency with which their names are mentioned in the following pages. It is not pretended that the present work is free from errors, but it is hoped that the author's shortcomings may be to some extent condoned in view of the enormous labour which its preparation has entailed.

J. E. HARTING.

BURLINGTON HOUSE,
March 25, 1901.

^{}_{*} *Reference to the figures will be facilitated by referring to the page at which the Plate is inserted given in the List of Plates or in the Index.*

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From Original Drawings by the late

PROFESSOR SCHLEGEL

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PART I

BRITISH BIRDS, PROPERLY SO CALLED,
BEING RESIDENTS, PERIODICAL MIGRANTS,
AND ANNUAL VISITANTS

HANDBOOK OF BRITISH BIRDS

ORDER I. ACCIPITRES

Fam. FALCONIDÆ

GOLDEN EAGLE. *Aquila chrysaëtus* (Linnæus). Pl. 1, figs. 1, 1a. Length, ♂ 32 in., ♀ 35·5. in.; wing, ♂ 24·5 in., ♀ 27·5 in.; tarsus, ♂ 3·7 in., ♀ 3·8 in.

Now resident only in the Highlands and islands of Scotland, and Ireland; though formerly nesting in Orkney, the Lowlands of Scotland, the mountainous parts of Cumberland and Westmorland, the highest part of Cheviot, the Peak of Derbyshire, and in North Wales. As to the former existence of Eagles in Cumberland and Westmorland, see a very full and interesting account in Macpherson's "Fauna of Lakeland," 1892, p. 186. As a wanderer, the Golden Eagle is occasionally met with in England during the autumn months, but has not been known to breed south of the Forth and Clyde for the last sixty or seventy years. As to its present status in Scotland, it is satisfactory to know that in many deer-forests orders have of late years been given for its protection, and the fears which ten years ago were entertained for its extermination are now happily removed.

Although it is the usual habit of the Golden Eagle to breed in cliffs, the nest is occasionally placed in a tree. One such is figured in Harvie-Brown and Buckley's "Fauna of the Moray Basin," vol. ii. p. 54. Dr. John Hill, in his "History of Animals," 1752, states that he shot a Golden Eagle in Charlton Forest, Sussex, and once found a nest there. He describes the bird as "the size of a turkey, of the weight of not less than 10 lbs. or 12 lbs., and with legs feathered down to the toes."

In *The Zoologist* for 1889, p. 232, is reported a remarkable capture of a Golden Eagle alive, owing to a pair having fought and got their talons inextricably interlocked. The incident occurred at Stratherrick, on the estate of Captain Fraser of Farraline, and the captive was purchased by Mr. Henderson of Inverness, and presented by him to the Zoological Gardens, Regent's Park.

In October 1892 I received a female Golden Eagle in the second year's plumage that had been trapped in Argyllshire: in expanse of wing it measured 7 ft., and its weight was 9 lbs. 10 oz.; one from Ross-shire in September 1897 weighed 11 lbs., and another from Galway in October 1889, 12½ lbs.

An immature Golden Eagle preserved in the British Museum has patches of white on the shoulders like an Imperial Eagle. It was shot in Berriedale in February 1878.

Several cases are on record of captive Eagles having hatched the eggs of geese and poultry, and reared chickens. The late Duke of Argyll reported

in *Nature*, April 1879, an instance which occurred in 1877 in Achill Island, co. Mayo, where an eagle belonging to Mr. Pike of Glendarary hatched two goose eggs and fed the young on flesh. Other cases are mentioned in *The Field*, May 18, 1889, April 27, 1895, and Feb. 22 and 29, 1896. The Common Buzzard (*q.v.*) has a similar propensity.

WHITE-TAILED EAGLE. *Haliaëtus albicilla* (Linnaeus). Pl. 1, figs. 2, 3, 3a. Length, ♂ 33·5 in., ♀ 38 in.; wing, ♂ 24·5 in., ♀ 26 in.; tarsus, ♂ 4 in., ♀ 4·5 in.

Resident in Shetland, the north and west of Scotland and Ireland; nested formerly in Orkney, in Westmorland, the Isle of Man, and Lundy Island; reported also to have nested formerly on the Dewerstone Rock, Bickleigh Vale, Devonshire (Rowe, "Perambulation of Dartmoor," p. 232; and D'Urban and Mathew, "Birds of Devon," p. 151); and in 1780 in the Isle of Wight (Warner, *Hist. Isle of Wight*, 1795). Birds of the first year are regular autumnal visitants to the south and south-east of England, and when captured, or observed, are almost invariably reported as "Golden Eagles." The two species may be distinguished at any age by their feet. The Golden Eagle has the legs feathered to the base of the toes; in the Sea-Eagle the legs are bare. The average length of an adult Sea-Eagle is 3 ft. to 3 ft. 4 in.; expanse of wing, 7 ft. 6 in. to 7 ft. 10 in. Weight, one from Brighton, 10½ lbs.; another from Arundel, barely

10 lbs.; a third from Stornoway, a fine adult bird, a trifle over 13½ lbs.

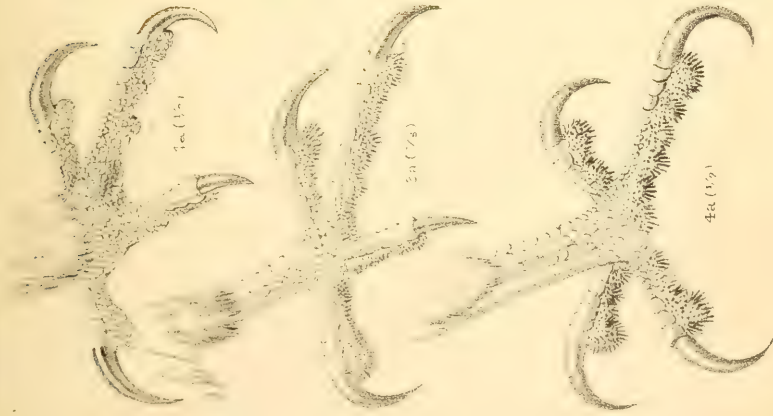
In January 1875 Mr. Heathcote reported a tame Sea-Eagle at Dunvegan, which used to fly loose and come down when called. When the steamer came in, they used to put bits of meat for it on the paddle-box, and it would come on board to feed. It was eventually killed out of revenge for certain ducks abstracted. At the present time Mr. George Long of Swavesey, Cambridgeshire, has a tame Golden Eagle which is occasionally allowed its liberty, and, as I have seen, comes to a lure like a trained falcon.

Eagles are not subject to much variation of plumage, except that which is dependent upon age. An albino Sea-Eagle, however, was killed at Achin-duich, in the parish of Lairg, in November 1857.

OSPREY. *Pandion haliaëtus* (Linnæus). Pl. 1, figs. 4, 4a.
Length, 24 in.; wing, 19·5 in.; tarsus, 2·5 in.

Still breeds in Scotland, where it is a summer migrant; visits England in spring and autumn, and is occasionally met with in Ireland in autumn.

According to Willughby ("Ornithology," 1678, p. 21), the Osprey used to nest in Westmorland. He writes: "There is an aery of them in Whinfield Park, preserved carefully by the Countess of Pembroke." This account, for reasons stated, is accepted by Macpherson (*Zool.* 1889, p. 256, 1892, p. 75; and "Fauna of Lakeland," p. 214), but Professor Newton and Mr. A. G. More (*Zool.* 1892) have expressed the opinion that the nest was probably that of a



1. 1a. Golden Eagle. 2. 3. 3a. White-tailed Eagle, old, young & foot. 4. 4a. Osprey. 5. 6. 6a. Montagu's Harrier, ♂. ♀ & foot.
7. 8. Marsh Harrier, young & old.

White-tailed Eagle. The Osprey still breeds at Loch-an-Eilan, Rothiemurcus, Inverness-shire, where it is protected by Sir P. Grant; also at Glencarwick, in the same county, and at Lochluichart in Ross-shire, where the keepers of Lady Ashburton have strict orders to see that the birds are not molested. In 1891 a pair nested at Loch Morlich, a few miles from Loch-an-Eilan. A view of Ardvreck Castle, on Loch Assynt, Sutherland, the old site of an Osprey's nest, is given in the "Fauna of Sutherland and Caithness," p. 177.

In June 1893 the Zoological Society awarded two silver medals for the protection of the Osprey in Scotland: one to Donald Cameron of Lochiel, the other, intended for Sir J. Grant of Rothiemurcus (then lately deceased), to Lieut.-Gen. Strachey, on behalf of the relatives.

Respecting the identity of the American and European species, J. H. Gurney, sen., wrote: "The Norwich Museum possesses an extensive series of Ospreys from various parts of the world, and I have no hesitation in expressing my belief that the species is identical, not only on the coasts of North America and Europe, but also on those of Africa, Asia, and Australia" (*Ibis*, 1867, p. 465).

PEREGRINE FALCON. *Falco peregrinus*, Gmelin.
Pl. 2, figs. 1, 2, 2a. Length, ♂ 16 in., ♀ 19 in.; wing,
♂ 12·5 in., ♀ 14·5 in.; tarsus, ♂ 2 in., ♀ 2·3 in.

Breeds in the sea-cliffs on many parts of the coast, migrating to the east and south-east in autumn.

Recorded as breeding at Beachy Head (*Zool.*, 1849). Very rarely nests in trees, but does so, according to Mr. R. L. Patterson, at Glenarm in county Antrim. In the middle and western prairie regions of North America, where there are no suitable cliffs, the Peregrine (or Duck Hawk, as it is there called) often nests on the tops of large sycamores. That it occasionally preys on small birds is certain: a male brought to Swaysland, the Brighton birdstuffer, on January 5, 1864, had eaten a Greenfinch, and the crop also contained the legs of a common Bunting, as well as portions of four other small birds. I once saw a Peregrine kill a Snipe, which it took at the first stoop; this was on Riddlehamhope Moor, in Northumberland.

The average weight of the tiercel or male is 1 lb. 10 oz.; of the falcon or female, 2 lbs. 8 oz. Expanse of wing, male, 38 to 39 in.; female, 46 in.

HOBBY. *Falco subbuteo*, Linnæus. Pl. 2, fig. 4. Length, ♂ 11·5 in., ♀ 13·5 in.; wing, ♂ 10 in., ♀ 10·5–11 in.; tarsus, ♂ 1·25 in., ♀ 1·4 in.

A summer migrant to England and Scotland, arriving in April, but not common; still rarer in Ireland (*Zool.*, 1877, p. 471; 1883, p. 122; 1890, p. 357). Of more frequent occurrence in the east than the west of Scotland (Gray, "Birds of West of Scotland," p. 29). As to nesting in Scotland, see Sir E. Newton, *Zool.*, 1889, p. 32.

The Hobby breeds later than any other hawk (*Naturalist*, 1853, p. 274), generally occupying the

deserted nest of a Crow or Magpie. In Yorkshire it has nested at Rossington, near Doncaster; at Bishop's Wood, near Selby, in 1869, and at Everingham Park, near Market Weighton, in 1875. In North Lincolnshire it nests annually in the woodlands near Louth, and also between Langworthy and Wragby. As to its breeding in Norfolk, see Norgate, *Trans. Norf. Nat. Soc.*, iii. p. 351. It used to breed formerly in Oakley Wood, near Hathern, Leicestershire. In Essex, in 1877, a nest with four young was found at Felstead. In 1878 and 1879 there were nests at White Notley, near Witham, Essex, from which the young were taken and flown "at hack" by W. Brewster. He and I trained them to fly at Larks, and I kept one of them until the following winter, when it died during a frost. In May 1881 a nest of the Hobby with four eggs was found by a gamekeeper of Lord Ebury in a fir tree in Moor Park, Herts.

There can be no doubt that the Hobby of late years has become much scarcer in England, from its coming to the woods to breed at a time when gamekeepers are anxious about the young pheasants. Ignoring the fact that it leaves the woods to feed, takes its prey on the wing, and feeds largely on insects, they lose no opportunity of destroying both old and young by shooting into the nests. Where more enlightened proprietors forbid such wanton destruction, the Hobbies live to afford pleasure and amusement to many by their beautiful evolutions on the wing. Between the years 1882 and 1890 inclu-

sive, the late Lord Lilford, who protected these birds, had evidence of the hatching out of no less than ten broods of Hobbies in his own neighbourhood in Northamptonshire, and sixteen nestlings were brought to him without the destruction of any of the parent birds. In 1898 Major C. H. Thompson secured a nest of three young birds in Essex, which he trained for Lark-hawking.

The speed of the Hobby is considerable. On May 15, 1888, one was taken alive whilst feeding on a Swift which it had captured at Mistley, in Essex. The Hobby has a much longer wing than the Merlin, and may be distinguished by its resemblance to a small Peregrine, with a black cheek-patch, which is wanting in the Merlin. In the Hobby the wing measures 10–11 in., in the Merlin $7\frac{1}{2}$ – $8\frac{1}{2}$ in.

Hobbies are sometimes, though rarely, seen in winter. In October 1878 one was killed in the Edmonton marshes, and another at St. Leonards; and in the following year a female Hobby was shot at Bridgend, South Wales, on Nov. 30.

MERLIN. *Falco æsalon*, Gmelin. Pl. 2, figs. 5, 6. Length, ♂ 10 in., ♀ 12 in.; wing, ♂ 7·75 in., ♀ 8·5 in.; tarsus, ♂ 1·4 in., ♀ 1·5 in.

Resident in Scotland, Ireland, and on the moors of England and Wales, where it breeds. A winter visitant to the south.

This bird almost invariably nests upon the ground, like the Short-eared Owl; but Mr. Harvie-Brown

has noted that, in 1885, a pair took possession of a deserted nest in a tree at Loch Gruagach, Assynt, and were taken by Mr. Tennent and the keeper ("Fauna of Sutherland," p. 176). Mr. Aplin also, in Norway, found a pair of Merlins occupying an old nest in a birch-tree some thirty feet from the ground (*Zool.*, 1896, p. 452).

The adult male Merlin weighs from 5 to 6 oz., the female 7 oz. Its prey consists of Meadow Pipits, Linnets, Twites, Stonechats, and other small moorland birds, and occasionally Snipe; but not, as some gamekeepers assert, Grouse, which are too strong and heavy to be captured, being four times the weight of a Merlin. Grouse chicks, however, are no doubt occasionally carried off when straying from the protection of the hen.

KESTREL. *Falco tinnunculus*, Linnæus. Pl. 2, figs. 7, 8.
Length, 12·5 in.; wing, 9 in.; tarsus, 1·5 in.

Resident, migrating to the east and south-east in autumn. Common on the hill-farms in the south of Scotland, where it preys much on the short-tailed Field Vole (*Arvicola agrestis*). See the "Report of the Committee appointed by the Board of Agriculture to inquire into a plague of the Field Voles in Scotland," 1893.

Kestrels occasionally nest in hollow trees, as at Bromley, in Kent, in 1876, when six eggs were found in one nest, the usual number being five (*Field*, June 3, 1876). They have also been known to build in wheat-stacks (*Field*, June 5, 1875, and

Zool., 1889, p. 232). A pinioned Kestrel, kept in a walled garden at Burnley Hall, East Somerton, Norfolk, built a nest in the corner of a tool-house and hatched five young ones. Mr. W. H. St. Quintin, of Scampston Hall, Yorkshire, had a pair of Kestrels which reared their young in an outdoor aviary, and were eventually allowed their freedom.

That this hawk is migratory is shown by its occasionally perching on the rigging of ships at sea, sometimes at a considerable distance from land. During a fog in the autumn of 1891, a steamer in the Baltic, bound for Newcastle, was boarded by a number of Kestrels. They were either so exhausted, or so stupefied by the fog, that a great many were captured, and on the arrival of the vessel at Newcastle nine of them were taken alive to the Museum.

In 1865 Mr. Howlett, the birdstuffer at Newmarket, had a white Kestrel, which was shot that year on Newmarket Heath.

SPARROW-HAWK. *Accipiter nisus* (Linnæus). Pl. 2, figs. 11, 12, 12a. Length, ♂ 13 in., ♀ 15·5 in.; wing, ♂ 8 in., ♀ 9·5 in.; tarsus, ♂ 2·3 in., ♀ 2·5 in.

Resident, and generally distributed, although annually becoming rarer in consequence of the numbers shot and trapped by gamekeepers. So far as my experience goes, the Sparrow-Hawk generally builds a nest for itself; but sometimes takes possession of the deserted nest of another species, usually that of a Crow, Magpie, or Wood Pigeon, if placed at a sufficient height. The adult

female Sparrow-hawk sometimes, though rarely, becomes blue on the back like the male. I have seen instances of this. White specimens are very rare. In *The Zoologist*, 1851, p. 3276, one was recorded by the late Sir Edward Newton as having been taken near Elveden; in 1876 Mr. Howlett, the birdstuffer at Newmarket, preserved a white Sparrow-hawk that was shot at Garely, and a third was in the collection of the late Frederick Bond (*Zool.*, 1889, p. 419). Instances of albinism in the *Falconidæ* are rare; in the case of the Northern Jerfalcons and the Snowy Owl the white plumage is normal, and of advantage to the species, favouring an approach to their prey over snow-clad fells.

GOSHAWK. *Astur palumbarius* (Linnæus). Pl. 2, figs. 9, 10, 10a. Length, ♂ 19·5 in., ♀ 23 in.; wing, ♂ 12 in., ♀ 14 in.; tarsus, ♂ 3 in., ♀ 3·5.

Formerly resident in the north of England and Scotland, as well as in Ireland: Irish Goshawks are mentioned by several authorities as having been formerly held in great esteem by falconers. This bird used to breed in the Forests of Darnaway, and Glenmore, near Grantown on the Spey (St. John), and in the Forest of Rothiemurcus, where Col. Thornton, who died in 1823, procured one which he trained; also in Kirkcudbrightshire (Lee, *Naturalist*, 1853, p. 45), and in the woods of Castle Grant, Inverness, and Abernethy and Dalnane Forests (Dunbar, *Ibis*, 1865, p. 10). In Sept. 1862 the late A. E. Knox twice saw a Goshawk in the Forest of Mar (*in litt.* Oct. 20, 1862).

According to Mr. Tottenham Lee, a pair of Goshawks once took possession of a Raven's nest in Roxburghshire (*Nat.*, 1853, p. 45), and the late Edward Hargitt had two eggs of the Goshawk which were taken from a nest at Balmacara, Ross-shire, in April 1871. This bird used to frequent Oakley and Piper Woods, Leicestershire (Harley), and Selby has noted its former occurrence on the wooded banks of the Dee. Dr. John Hill, in his "History of Animals," 1752, mentions a Goshawk's nest in the Forest of Rockingham, Northants, and states that a servant of his who climbed to the nest was attacked with fury by the old birds.

Although old works on Falconry state that "the best Goshawks were procured in the north of Ireland, as in the province of Ulster, but more especially in the county of Tyrone,"¹ Thompson asserts ("Nat. Hist. Ireland," i. p. 62) that the Goshawk "cannot be included in the Irish fauna with certainty." This may have been true in his day (1850), but could not have been so in the time of Elizabeth and James I., when it is certain that Goshawks were procured there for hawking in England. The scarcity of this bird in Ireland at the present day, and for some years past, is probably due to the increased use of guns, and the consequent destruction of large birds of prey, as well as to the increased scarcity of timber; for the Goshawk is a

¹ See Turbervile's "Book of Falconrie," 2nd ed., 1611, p. 60; Cox, "The Gentleman's Recreation," 1697, p. 59; and Campbell's "Treatise on Modern Falconry," 1780, p. 214.

“woodlander,” and invariably nests in a tree. In 1844, according to the late Dr. J. R. Kinahan, a Goshawk was killed at Kilrudden, Co. Wicklow, and another in 1846 in Co. Longford (Watters, “Birds of Ireland,” 1853, p. 8). An adult female Goshawk shot in the Galtee Mountains, Tipperary, Jan. 17, 1870, as recorded by Sir Victor Brooke (*Land and Water*, March 5, 1870), proved to be the American *Astur atricapillus*. (See Part II.) A young male, however, of *Astur palumbarius* was seen in Ballymanas Wood, Co. Wicklow (*Zool.*, 1870, p. 2283). Low was doubtless mistaken in asserting in his “Fauna Orcadensis” that the Goshawk frequents Orkney; his reference to sea-cliffs points to the Peregrine. Edmonston thought that it nested in Shetland (*Zool.*, 1844, p. 459), but Saxby (“Birds of Shetland”) considers him to have been mistaken, although he himself had seen a Goshawk there in April 1859 in the rabbit warren on Balta Island, and one was shot in Unst during the winter of 1860 (Evans and Buckley, “Fauna of Shetland,” 1899, p. 117).

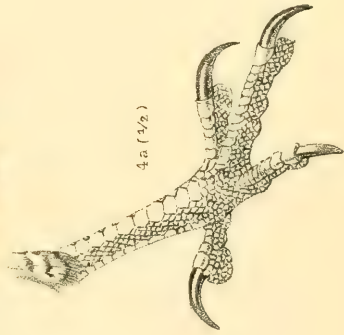
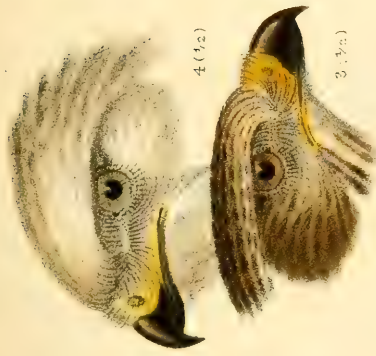
KITE. *Milvus regalis*, Roux. Pl. 3, figs. 6, 6a. Length, 24 in.; wing, 20 in.; tarsus, 2 in.

Formerly common over all the open heaths and waste lands, and much esteemed by falconers for the royal flights which it afforded when pursued by trained gerfalcons. Hence the name *regalis*, bestowed on it by Roux in 1825, and adopted by Macgillivray, Gray, Gould, and many Continental

authors. In the first quarter of the present century the Earl of Orford and Colonel Thornton, with the members of the Falconers' Club, used to range for Kite near Elveden Gap and Eriswell in Suffolk, and over Thetford Warren. In Dr. Heysham's time (1796) the Kite used to breed in the woods near Armathwaite, and from its gliding flight was known in Cumberland as the *glead*, from the Anglo-Saxon *glidan*, to glide (Macpherson, "Fauna of Lakeland," 1892). It is not known that any Kite has been killed in that district during the last thirty-five years. In Yorkshire, in Edlington Wood two were taken from the nest by Hugh Reid of Doncaster about 1824; also in Murton Wood near Hawaby, where birds were procured (Clarke, "Yorkshire Vertebrates," p. 45). In Lincolnshire, Bullington Wood, near Wragby, eggs were taken in the spring of 1870 (Cordeaux). Charnwood Forest, Leicestershire ("Annals of Sporting," 1824, p. 308); Monks Wood and Alconbury Hill, Huntingdonshire, until 1844 (Wolley). About Alconbury Hill between 1824 and 1829 Kites were quite common (Birch Reynardson, "Reminiscences," 1875, p. 74). In Worcestershire at Alfrick, near Great Malvern till 1850 (Jabez Allies). Kites used to nest in Tolvern Wood, Cornwall (Bullmore); in North Devon (Lord Lilford); in Brampton Brian Park, Herefordshire (Armitage¹); and in 1834 about Newport, Monmouthshire (Conway).² Two young Kites were

¹ *Trans. Woolhope Nat. Field-Club*, 1869.

² *Mag. Nat. Hist.*, 1834, vii. p. 334.



1 2. 2a Honey Buzzard, ♂. ♀ & foot. 3. 4. 4a. Common Buzzard, old, variety & foot. 5. Rough-legged Buzzard, foot. 6. 6a. Kite.

taken in Radnor Forest in 1868 (*Trans. Woolhope Nat. Field-Club*, 1869, and *Zool.*, 1871, p. 2519). These birds were common there until the neighbouring warren was destroyed. In 1887 a nest was discovered in Breconshire by Capt. Swainson. It was built in a nearly branchless oak about forty-five feet from the ground, and contained three young birds about ten days old. In 1891 and 1892 Kites were nesting in that county. In 1893 two pairs and a single bird were found in Cardiganshire; the eggs of one pair were taken on April 25, and my informant, Dr. Salter of Aberystwith, saw the nest of a second pair on May 23, from which the eggs had been taken a few days previously (*Zool.*, 1893, pp. 311, 355). In 1895 a pair nested not far from Shrewsbury (Marchant and Watkins, p. 76). See my article on "The Disappearance of the Kite" in *The Field*, Dec. 11, 1897.

In Scotland, where this bird was once common, it is now rarely seen. It used formerly to breed in Stirlingshire, Ayrshire, and the Isle of Arran.

Kites were breeding in Inverness-shire in 1850 (Wolley), in Argyllshire in 1858 (R. Gray), and in Perthshire in 1871. In July 1876 I saw two young Kites in the possession of the late E. T. Booth of Brighton, who had just brought them from Glen Lyon. They were "branchers," and would soon have been able to fly well. They had nearly got rid of their down, but the tail was not yet forked.

In Ireland the Kite is very rare, and according to A. G. More ("List of Irish Birds"), has not been

observed there more than half-a-dozen times. One was shot on the Cashen river, Co. Kerry, in the winter of 1880-81 ("Fowler in Ireland," p. 307).

COMMON BUZZARD. *Buteo vulgaris*, Leach. Pl. 3, figs. 3, 4, 4a. Length, ♂ 22 in., ♀ 23 in.; wing, ♂ 15 in., ♀ 16·5 in.; tarsus, ♂ 2·75 in., ♀ 3 in.

A local resident, migrating to the east and south-east in autumn; gradually being exterminated by gamekeepers and collectors. Some idea of the number of Buzzards that formerly haunted the woods around the English Lakes may be gathered from the fact that a keeper in the employ of General Wyndham in 1841 destroyed no fewer than fifty of these birds within a short time of his engagement. Fortunately a few still linger about their old haunts, and continue to nest in Westmorland (Macpherson, "Fauna of Lakeland," 1892, p. 184). In 1852 the Buzzard nested at Sedburgh, near Kendal, and three eggs were laid (*Nat.*, 1853, p. 108). The following year a pair nested on a crag known as the Red Scar, near Richmond, Yorkshire, and hatched five young (*Nat.*, 1854, p. 81). In 1876, and from that year until 1880, there were nests at Gosforth in Cumberland (*Zool.*, 1881, p. 106), and from 1880 until the present time a few pairs have nested regularly in some of the more unfrequented parts of Wales. I have recently heard of nests at Ponterwyd and Pistyll-y-Llyn, at the head of the Llyfnant Valley. In 1895 the young were successfully reared in the New Forest.

As to the food of the Common Buzzard, W. T. Andrews, taxidermist of Swansea, having examined many specimens at all seasons of the year, states that he has never found any feathers in the crop, but invariably partly-digested fragments of the common mole (*Field*, Jan. 1877). In 1898 I watched a Common Buzzard in Wales feeding on earth-worms. It hopped about on the ground looking for them, and on seeing one, would draw it out of the soil, bite it in several pieces about an inch in length, and swallow each separately. Several instances are on record of tame Buzzards hatching hens' eggs. (See Yarrell, "Brit. Birds," 4th ed. i. p. 111; *Zool.*, 1881, p. 106, and *Proc. Linn. Soc.*, 1898, Nov. 3.) These cases show a conflict of two distinct impulses of instinct, that of killing prey and that of rearing young: since the former became modified by altered conditions of life which provided the birds with sufficient food, the maternal instinct proved the stronger of the two.

The average weight of the Common Buzzard is from 1 lb. 15 oz. (male) to 2 lbs. 8 oz. (female). The expanse of wing in a male bird which I measured was 3 ft. 9½ in.

ROUGH-LEGGED BUZZARD. *Buteo lagopus* (Gmelin).

Pl. 3, fig. 5. Length, ♂ 22·5 in., ♀ 26 in.; wing, ♂ 17 in., ♀ 18·5 in.; tarsus, ♂ 2·8 in., ♀ 3 in.

An autumn migrant. On the east coast of Scotland it sometimes appears in considerable numbers in autumn, when moving in migratory flocks (Gray,

“Birds West Scot.,” p. 47). The late Mr. Scales of Beechamwell, near Swaffham, remarked that the Rough-legged Buzzard annually visited the warren there in November and remained for some time in quest of rabbits. On the authority of the late Mr. Williamson of Scarborough, the nest of this bird is said to have been found near Hackness, Yorkshire ; and the late Thomas Edward reported one near Banff (*Ibis*, 1865, p. 12). Sir William Jardine informed me that the Rough-legged Buzzard once bred near Twizel, Northumberland, and that he accompanied the late J. P. Selby to look at the nest. This must have been subsequent to the publication of Selby’s “Illustrations of British Ornithology” in 1833, or the circumstance would certainly have been noticed in that work. Eggs of this bird, taken by Wolley in Lapland, are beautifully figured in Newton’s *Ootheca Wolleyana*.

HONEY-BUZZARD. *Pernis apivorus* (Linnæus). Pl. 3,
figs. 1, 2, 2a. Length, 23·5 in.; wing, 17·25 in.;
tarsus, 2 in.

A summer migrant from the south, sparingly distributed. Formerly nested in Selborne Hanger, as recorded by Gilbert White (Letter xliii. to Pennant), at Burnham Beeches (*Mag. Nat. Hist.*, 1837, p. 539), in Wellgrove Wood, Oxfordshire (*Zool.*, 1844, p. 237), and in several parts of the New Forest. I have seen eggs of the Honey-Buzzard from the New Forest taken at the following places and dates:—Two, South Bradley, 3rd July 1870 ; two, Crookley

Enclosure, 7th June 1871; and two, Stoney Cross, 17th June 1872, besides others taken in previous years. The young were hatched there as lately as 1895. The late Dr. Rooke of Scarborough had the eggs from Hackness, Yorkshire, two of which I saw. In July 1877 two young birds were taken from a nest in an extensive oak wood at Whitfield, near Hereford, where a few days later the female bird was trapped (*Zool.*, 1879, p. 132).

According to Macgillivray and Robert Gray, the eggs of the Honey-Buzzard have been taken in Aberdeenshire. In Ireland it is a very rare visitor. One in the Dublin Museum was obtained in Kildare in 1882, and another was shot in a wood near Gorey, Co. Wexford, in Oct. 1892.

Mr. J. H. Gurney states that, besides being a summer visitant, this species arrives as an early autumnal migrant on the east coast, and the birds so arriving are mostly birds of the year.

The late Mr. E. Clough Newcome, who died in September 1871, introduced some young Honey-Buzzards from France, and allowed them their liberty in Norfolk, where he resided; but although they became tame and remained for some time about the house, they disappeared in the autumn. As a rule, the Honey-Buzzard departs in September, but in 1863 one was shot at Priory Hall, St. Neots, by Mr. Dawson Rowley's keeper (W. Pearson), as late as Oct. 20. A female bird of this species which I examined in the flesh measured 23 inches in length; expanse of wing, 52 inches; weight, 1 lb. 14 oz.

MARSH HARRIER. *Circus æruginosus* (Linnæus). Pl. 1, figs. 7, 8. Length, ♂ 22·5 in., ♀ 23 in.; wing, ♂ 16 in., ♀ 17 in.; tarsus, ♂ 2·75 in., ♀ 3 in.

Formerly common in the English Fens, where it was known as the Moor Buzzard, but now seldom observed, except as an irregular visitant, and generally in autumn. In 1825 Messrs. Sheppard and Whitear reported these birds breeding in some of the marshes of Norfolk (*Trans. Linn. Soc.*, xv. p. 6). Mr. John Baker of Cambridge wrote in 1857: "It is very doubtful if the Marsh Harrier at the present day breeds anywhere in Great Britain: most certainly none do so in the Huntingdonshire or Cambridge Fens, nor have any nests been found in that locality since the draining of Whittlesea Mere in 1851." Nevertheless it continued to breed in other counties, such as the eastern side of Norfolk (where a nest with three young was taken near Yarmouth in 1862), and some of the wilder parts of Wales and the west of England. In 1866 when Stevenson published the first volume of his "Birds of Norfolk," he described the breeding haunts of the Marsh Harrier in that county as being then confined almost entirely to such quiet and preserved localities as Ranworth, Barton, Horsey, and Hickling, where a few pairs remained throughout the year. One of the latest instances of its breeding known to me occurred in 1877, when a nest of the Marsh Harrier was found on the Berwyn range of mountains in Denbighshire (Dobie, "Birds of Cheshire, Flint, and Denbigh,"

p. 312). Thompson, forty years ago, considered it resident in Ireland, where he found it generally distributed in suitable localities; and in 1885 Mr. A. G. More wrote of this bird ("List of Irish Birds"), "Still breeds in some of the bogs, especially in the midland counties and along the shores of the Shannon." In Scotland it is much rarer, but is believed to breed still in Aberdeenshire, Perth, and Banff. An adult male was shot in the parish of Kirkmichael, Dumfriesshire, early in May 1898, and was examined in the flesh by Mr. Robert Service of Maxwelltown, who kindly informed me of the fact.

HEN HARRIER. *Circus cyaneus* (Linnæus). Length, ♂ 22 in., ♀ 21·5 in.; wing, ♂ 13·5 in., ♀ 15–15·5 in.; tarsus, ♂ 2·9 in., ♀ 3 in.

A scarce local resident; occurring as an autumnal migrant in small numbers to the eastern counties. Formerly in parts of Scotland it was one of the commonest birds of prey, particularly in Sutherland, Caithness, and about the Loch of Spynie in Elginshire, as well as on Billie Mire in Berwickshire. It is now nearly extinct.

In an article entitled, "The Hen Harrier in Lincolnshire Sixty Years Ago" (*Field*, Nov. 27, 1886), the Rev. Edward Elmhirst, of Shawell Rectory, Rugby, has given a most interesting account of the status of this bird in the parishes of Market and Middle Rasen, Osgodby, Claxby, and Usselby, where he lived from 1821 to 1825.

At that date in Lincolnshire barren moors or commons, almost continuous, extending over ten parishes, and great tracts of unproductive land, afforded most congenial haunts for these birds. Before the writer and his family could reach their destination at the village of Usselby in 1821, they had to descend from their carriages and travel on foot through deep sand for three or four miles. On one of these great commons—Middle Rasen—there was considerably over sixty acres of gorse, with here and there small open spaces wherein the Hen Harriers built their nests. On this common alone, to the writer's knowledge, there were at least ten pairs of Harriers nesting at one time (1824–25). They were regarded as very destructive to game, and altogether no fewer than fifty of these birds were captured in one year on the Middle Rasen Moor.

On the moorlands of North-East Yorkshire and the carrs near Doncaster the Hen Harrier formerly bred every year. The last reported nest was found on the Danby Moors about 1850. None have been seen there since 1860. (Atkinson, "Forty Years in a Moorland Parish," p. 330.) In 1861, according to Stevenson, a pair of Hen Harriers bred at Horsey, Norfolk. In Huntingdonshire about that date Mr. G. D. Rowley bought three eggs of this bird for half-a-crown from a fen-man, named Charles Vessey, at Ramsay.

In May 1890 a nest with four eggs was taken at Shawbury Heath, Shropshire, and together with

the hen bird came into the possession of Mr. J. W. Lloyd of Kington, Herefordshire. Formerly when common enough to have a local name, the female Harrier was known as the "Ring-tail," from the white feathers encircling the base of the tail.

MONTAGU'S HARRIER. *Circus cineraceus* (Montagu).

Pl. 1, figs. 5, 6, 6a. Length, ♂ 18 in., ♀ 19 in.; wing, ♂ 15 in., ♀ 15·5 in.; tarsus, ♂ 1·5 in., ♀ 1·75 in.

A spring and autumnal migrant, occurring annually in the south of England, where it breeds. Rare in Scotland, and seldom seen in Ireland, where the few specimens procured have been met with between Dublin and Wexford (*Irish Naturalist*, 1898, p. 50; 1899, p. 232; and 1900, p. 21).

In Montagu's Harrier the outer web of the fifth primary is not notched as in the Hen Harrier, and the third primary is one inch longer than the fourth. Occasionally a sooty-black variety is met with. Montagu's Harrier has been known to breed in Yorkshire on several occasions, as on Thorne Waste; at Hackness near Scarborough; near Whitby; on Barden Moor in Upper Wharfedale, where both old and young birds were taken in 1860; and near Bridlington as late as 1871. In June 1875 a pair of Montagu's Harriers nested on the furze-covered downs above Ventnor in the Isle of Wight. I accompanied Mr. Howard Saunders expressly to see the nest *in situ*, and we had a good view of both the parent birds. One of the young ones was reared and sent to the Zoological Gardens. (See *Field*,

Sept. 18, 1875, and *Zool.*, 1875, pp. 4653 and 4672.)

In July 1875 a hen bird of this species and five young were taken in a marsh at Upton, Norfolk (Stevenson), and in June 1876 a nest with five eggs was taken, and the hen bird captured amongst furze about five miles from Brighton (Dawson Rowley).

In Dorsetshire, in June 1887, a nest containing four eggs, from which the hen bird rose, was found in a clover-field at Winterbourne, Kingston (Mansel Pleydell); and in 1895 at least two broods were reared in the New Forest (E. Meade Waldo).

Fam. STRIGIDÆ.

WHITE or BARN OWL. *Strix flammea*, Linnæus.
Pl. 4, fig. 3. Length, 14 in.; wing, 11 in.; tarsus, 2 in.

Resident and generally distributed in England, Wales, and Ireland. Less common in Scotland, though met with as far north as Caithness, as well as in the Inner Hebrides and Skye.

As to the food of the Barn Owl, see *Zool.*, 1888, p. 83, where Mr. J. H. Gurney has given the result of an examination of ninety-eight pellets, which contained the remains of twenty-one sparrows and finches, eight rats, numerous field-mice, and a few shrews. A pair of Barn Owls have been observed to bring as many as seventeen mice to their young in one evening.

Whenever these useful birds are killed off by

gamekeepers and farmers, there always follows a rapid increase of mice, and consequent injury to farm produce. An Owl and rat have been caught in the same trap, which the rat had just reached as he was seized by the Owl (*Field*, Dec. 14, 1895).

Occasionally Owls have been known to take fish. (See Jennings' *Ornithologia*, 1828, p. 55; Rev. W. T. Bree and Charles Waterton, *Mag. Nat. Hist.*, 1829, p. 179; Bolles, *The Auk*, 1890, pp. 101-144; Bendire, "Life-Histories of American Birds," 1892, p. 377; and editorial note in *The Field*, March 18, 1899.) The Tawny Owl, it would seem, is even more addicted to an occasional fish diet than the Barn Owl. In the East certain Owls of the restricted genus *Ketupa* habitually prey on fish.

Allusion is made by Shakespeare and Tennyson to "the Owl and his five wits." With our early writers—*e.g.* Chaucer in the "Parson's Tale"—the five senses appear to have been generally called the five wits; but it is not clear how this proverbial phrase became connected with the Owl. (See "The Ornithology of Shakespeare," p. 95.)

TAWNY OWL. *Syrnium aluco* (Linnæus). Pl. 4, fig. 4.
Length, 16 in.; wing, 11-12 in.; tarsus, 2.25 in.

Resident in England and Scotland, and increasing in many of the Scottish counties. Thompson states ("Nat. Hist. Ireland, Birds," i. p. 94) that, if included at all in the Irish fauna, it must be considered extremely rare. It is mentioned, however, in a list of birds in Smith's "History of

Cork," and the author distinguishes the sexes, describing one as brown and the other grey. The Tawny Owl is also recorded by Mr. R. J. Montgomery to have been received by him from Queen's County (*Zool.*, 1848, p. 2141), a fact apparently overlooked by Mr. A. G. More when preparing his "List of Irish Birds" in 1885.

This species nests earlier than either the Barn Owl, or the Short-eared Owl. Even as far north as Yorkshire eggs are often laid during the third week in March. Two or three instances are recorded in which these birds have built their nests on the ground; one of them, in Co. Durham, in April 1874, occupied the same spot in which a pheasant had nested the previous year, and was found sitting on three eggs; another nest was found on the top of a heap of fir-needles at the foot of a fir tree.

Prof. Newton is of opinion that the Tawny Owl is the type of the genus *Strix* of Linnæus, being his *Strix aluco*, and that the Barn Owl should stand as *Aluco flammeus* (Linnæus). See Yarrell's "Hist. Brit. Birds," 4th ed. vol. i. p. 146.

Mr. Herbert Playne has given an interesting account of a Tawny Owl which he tamed, and which would fly in and out of his bedroom window (*Zool.*, 1892, p. 444).

LONG-EARED OWL. *Asio otus* (Linnæus). Pl. 4, fig. 1.

Length, 14·5 in.; wing, 12 in.; tarsus, 1·5 in.

Resident, chiefly in wooded districts of the north and east of England, Scotland, and Ireland. Mr.

Gurney informs me that "some always breed in young fir plantations in Norfolk, but by far the greater number occur as regular autumnal migrants."

A specimen was shot near Loch Maddy, in North Uist, by Col. W. C. Verner in January 1897, the first recorded for the Outer Hebrides. It has been stated that both the Long-eared and Short-eared Owls breed in North Uist, but the statement requires confirmation. (See Irby, *Ann. Scot. Nat. Hist.*, January 1898.)

For an interesting note on the habits of this species, see Brockholes, *Zool.*, 1859, p. 6752; and for a curious story of a Long-eared Owl coming down to feed amongst trained falcons, see *Trans. Norf. Nat. Soc.*, iii. p. 92.

SHORT-EARED OWL. *Asio brachyotus* (Forster). Pl. 4, fig. 2. Length, 14 in.; wing, 11·75 in.; tarsus, 1·75 in.

This bird is the *Strix accipitrina* of Pallas, "Reise Russ. Reichs.," i. p. 455 (1771), and the *Strix brachyotus* of Forster, *Phil. Trans.*, lxii. p. 384 (1772); the genus *Asio* of Brisson is that now generally adopted for the reception of the eared owls.

The Short-eared Owl nests regularly in Scotland and the north of England, and is resident all the year in the west of Scotland north of Ayrshire. Breeds occasionally in Norfolk (Stevenson) and in Yorkshire (Clarke, "Yorkshire Vertebrates," p. 41), in Suffolk (*Zool.*, 1882, p. 232), Cambridgeshire (*Zool.*, 1881, p. 336), Huntingdon (F. Bond), Essex (*Zool.*, 1889, p. 453), and Devonshire (*Zool.*, 1893,

p. 231); but it is usually a winter visitant to the south of England, and to Ireland. It has been known to breed in Cardiganshire for several years (*Field*, Jan. 21, 1880). In the summer of 1893 I saw several nests in Roxburghshire. The Lowlands of Scotland were in that year overrun with a plague of field-voles, and there was a marked increase in the number of Short-eared Owls over the affected area, while the nests almost invariably contained more than the average number of eggs.

These birds being migratory, it is not unusual to find an assemblage of them on their arrival in October. Several such cases are noticed in Mathew and D'Urban's "Birds of Devon," where flocks of six, twelve, and even twenty are mentioned. Messrs. Sheppard and Whitear, writing of the appearance of these birds in Norfolk, remark: "They arrive in flocks of from ten to twenty, and frequent heaths; in which respect they differ from the long-eared species, which is fond of the gloom of fir plantations."

ORDER II. PASSERES¹

Fam. LANIIDÆ

GREAT GREY SHRIKE. *Lanius excubitor*, Linnæus.

Pl. 5, fig. 6. Length, 9 in.; wing, 4·5 in.; tarsus, 1 in.

The specific name *excubitor* (i.e. the sentinel) was bestowed by Linnæus from having observed in 1734 that the Dutch falconers made use of this

¹ See Newton's "Dictionary of Birds," s.v. Passeres, p. 697.

bird (as they still do) to give notice of the approach of a hawk, which they then captured by means of a bow-net and a decoy pigeon. The circumstance is noted in the journal of his tour in Dalecarlia, 1734, the original MS. of which is preserved in the library of the Linnean Society.

Although an autumn and winter visitant, the Grey Shrike has been very rarely seen in England in summer (*Ibis*, 1859, p. 330). Amongst the Grey Shrikes which are found here in winter, some have the basal half of the primaries white, giving the appearance of a single white bar across the wing when closed; in others, the bases of the secondaries are also white, causing the closed wing to appear double-barred. The latter form is the typical *excubitor*; the former is *Lanius major* of Pallas, a more eastern race. Both forms meet in Scandinavia, where they interbreed, as shown by Prof. Collett, who states (*Ibis*, 1886, pp. 30-40) that both forms have been found in the same brood, and that intermediate forms have also been met with.

In regard to its singing powers, see Kerry, *Zool.*, 1880, p. 70; as to migration, nesting, and habits in confinement, see Macpherson, *Zool.*, 1891, pp. 96-100.

RED-BACKED SHRIKE. *Lanius collurio*, Linnæus.
Pl. 5, figs. 8, 9, 9a. Length, 7 in.; wing, 3·5 in.;
tarsus, 1 in.

A summer migrant, most numerous in the south of England; rare in Scotland, occasionally nesting in

the south-east. Has once been met with in Ireland, where one was shot near Belfast in August 1878.

As to the distribution of this bird in Great Britain, see Aplin, *Trans. Norfolk Nat. Soc.*, vol. v. (1892), p. 286, and *Zool.*, 1896, p. 70.

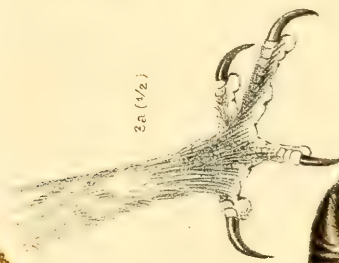
In the south of England it is not nearly so numerous as it used to be thirty years ago, owing to the increased practice of cutting and laying the tall tangled hedgerows in which it delights to nest. To judge from the accounts given of the Red-backed Shrike in various bird-books, it would seem to be not generally known that the cock bird has "a song," and that the hen occasionally assumes the male plumage, as in the case of the female Sparrow-hawk.

The habit of all the Shrikes to impale their prey—beetles and other insects, small birds and young mice—on thorns when captured explains the provincial names, "flusher," corruption of "flesher" (German *fleischer*), and "butcher-bird" commonly bestowed in this country on the red-backed species.

WOODCHAT. *Lanius rufus*, Gmelin (*ex* Brisson).

Pl. 5, fig. 7. Length, 7 in.; wing, 3·75 in.; tarsus, nearly 1 in.

This bird is the *Lanius rufus* of Brisson, 1760, the name revived by Gmelin, 1788; *auriculatus* of Müller, 1776; *pomeranus* of Sparrman, 1786; *rutilus* of Latham, 1790; *ruficeps* of Bechstein, 1805; and *ruficollis* of Shaw, "Gen. Zool.," 1809; all of which names have been employed in turn by English and Continental ornithologists. Mr. Howard Saunders,



1. 1. a. Long-eared Owl. 2. Short-eared Owl. 3. 3. a. Barn Owl. 4. Tawny Owl. 5. Little Owl. 6. 6. a. Snowy Owl.

writing on the earliest available scientific name for the Woodchat (*Ibis*, 1883, p. 83), states that *auriculatus*, Müller, adopted by Prof. Newton in his edition of Yarrell, and by Dr. R. B. Sharpe in the Brit. Mus. Catalogue of Birds, vol. viii. p. 283, is a Grey Shrike, and probably *Lanius minor*; that *rutilus*, Latham, though certainly applicable to the Woodchat, and so employed in the former edition of this "Handbook," is forestalled by *pomeranus*, Sparrman, which name he considers should be selected for general use. Brisson's name, *rufus*, however, is here adopted as being the oldest for the species; for although, as Mr. Saunders states, it antedates the ornithological era, 1766 (fixed by the date of the 12th edition of Linné's *Systema Naturæ*), yet its revival in 1788 by Gmelin, who in that year edited the thirteenth edition of that work, may be said to have restored it to favour.

It is a rare summer visitant to England. The only record of its occurrence in Scotland is that given in Don's "List of the Birds of Forfarshire," and there is no instance known of its having been found either in Ireland or in Wales.

In an excellent paper entitled "The Status of the Woodchat in Great Britain" (*Zool.*, 1892, pp. 345-352), Mr. O. V. Aplin has shown that, even including doubtful occurrences, not more than thirty-five or forty examples have been killed in this country, and those chiefly in the eastern and southern counties. There is no doubt, however, that the Woodchat has occasionally bred in England. The

nest and eggs have twice been taken at Freshwater, Isle of Wight (More, *Zool.*, 1860, p. 6851), and once in Dorsetshire (Mansel Pleydell, "Birds of Dorset," p. 17); while young birds have been obtained in other counties. This was one of the rarer birds noticed at Selborne by Gilbert White.

Fam. MUSCICAPIDÆ.

SPOTTED FLYCATCHER. *Muscicapa grisola*, Linnæus.

Pl. 5, figs. 1, 1a. Length, 5·5 in.; wing, 3·3 in.; tarsus, ·75 in.

A summer migrant, generally distributed, but less common in Scotland than elsewhere in the British Isles. The young differ from the adult birds in being spotted all over; hence the familiar name.

Flycatchers, like Shrikes and birds of prey, have a habit of ejecting from the mouth, in the shape of small pellets, the indigestible portions of their food. These pellets, or "castings," as they are termed by falconers, resemble, in the case of the Spotted Flycatcher, small blue pills, and on examination have been found to be composed of the hard and shining wing-cases of small beetles. A similar habit of ejecting pellets has been noticed in Rooks, Wood Pigeons, and some other birds.

PIED FLYCATCHER. *Muscicapa atricapilla*, Linnæus.

Pl. 5, figs. 2, 3, 3a. Length, 5 in.; wing, 3 in.; tarsus, ·6 in.

A summer migrant, but more local in its distribution than the Spotted Flycatcher, being confined

chiefly to the northern and midland counties of England and Wales, and rarely found in the south. In Ireland it is reported to have occurred at Moyview, Co. Sligo, in April 1875, and at the Blasquet Islands, off the Kerry coast (Warren, *Zool.*, 1875, p. 4498; 1877, p. 237; and 1888, p. 267). It is almost as rare in Scotland, where, however, it has been known to breed in a few instances. Mr. R. Service once found in Dumfriesshire a nest of the Pied Flycatcher containing seven eggs, situated in a deep hole in an alder tree; and on another occasion saw a brood of young ones which had just left the nest. Mr. Harvie-Brown informs me that in 1872 specimens were obtained in Sutherlandshire and Berwickshire.

The Pied Flycatcher breeds annually in the woods about Lowther Castle, Westmorland, and in Yorkshire at Castle Howard, Duncombe Park, and Bolton Woods. I once saw a male bird of this species in Exton Park, Rutlandshire, during the first week of September. Of late years, more attention having been paid to the distribution of birds in the nesting season, the Pied Flycatcher has been observed in many parts of Wales, as, for example, Pembroke, Brecon, and Glamorganshire, and has been found nesting in Gloucestershire, Hereford, North Devon, and the Isle of Wight. In Cornwall it is seen in autumn on migration.

The Collared Flycatcher (*Muscicapa collaris*) of Europe, not unlike the Pied Flycatcher in general appearance (see Pl. 5, fig. 4), might well be mistaken

for it at a little distance. Included by Gould in the British list, it has not yet been satisfactorily identified in this country, though it might well occur here as an occasional summer visitor.

Fam. ORIOLIDÆ.

GOLDEN ORIOLE. *Oriolus galbula*, Linnæus. Pl. 14, figs. 3, 4, 4b. Length, 9 in.; wing, 6 in.; tarsus, .8 in.

An annual summer migrant. The nest has been found in Kent several times, in Dorsetshire, Devonshire, and Suffolk. In 1849 a nest containing three eggs was taken, together with the parent birds, at Elmstone, in Kent. Another nest and eggs were taken at West Mill, near Wingham, Kent, in 1851, and were long preserved at the Rectory there (Rev. H. L. Jenner).

Orioles are believed to have nested in 1871 in Surrey, and in Northamptonshire, according to observations made by Mr. Howard Saunders and the late Lord Lilford. Messrs. Sheppard and Whitear have referred to a nest found near Ormsby, in Norfolk.

In 1874 a pair of Orioles bred in Dumpton Park, near Ramsgate, and on July 12 I saw the hen bird sitting on the nest; on the 22nd of July the young had flown, and were afterwards seen in the park in company with the parents. A detailed account of the occurrence will be found in "Our Summer Migrants," p. 268.

There is some circumstantial evidence of this

bird having nested also in Essex (Miller Christy, "Birds of Essex," p. 102).

In Scotland it has been occasionally met with on passage, chiefly in the south, and in the east and south of Ireland it is regarded as an occasional visitor.

Fam. CINCLIDÆ.

DIPPER or WATER OUZEL. *Cinclus aquaticus*, Bechstein. Pl. 17, figs. 11, 11a. Length, 6·75 in.; wing, 3·5 in.; tarsus, 1 in.

Resident in Scotland, the north and south-west of England, Wales, and Ireland, frequenting mountain and moorland streams which have a rocky or stony bed.

The Scandinavian form, *Cinclus melanogaster*, characterised by an absence of chestnut colouring on the underparts, appears to be an occasional migrant to Norfolk and Suffolk (Stevenson's "Birds of Norfolk," vol. i. p. 69). Mr. J. H. Gurney has a specimen of this variety which was shot in Yorkshire near Bridlington, and others have been procured in the same county, at Welwick, Oct. 24, 1874; at Beverley, Oct. 29, 1875 (Boyes, *Zool.*, 1876, p. 4871); and near Filey, Dec. 8, 1875 (Tuck, *Field*, Jan. 1876).

The Dipper, though rare in the Midlands, is seen occasionally on the streamlets that rise in Charnwood Forest (Harley, "Birds Leicester."). It is said to have nested in Middlesex and in

Hampshire (*Zool.*, 1882, p. 109). An exceptional case of a Dipper's nest in a tree is mentioned (*Zool.*, 1888, p. 309).

As to its alleged destruction of Salmon and Trout ova, the observations of St. John, Colquhoun, and Sir James Maitland leave no room for doubt that the charge is true. But, as St. John remarked, it attacks Trout spawn more frequently, and in this way does some good, for the most deadly enemy to Salmon ova is the larger burn Trout. The Dipper feeds, moreover, on the destructive larvæ of aquatic beetles, as well as on fresh-water limpets.

Attempts have sometimes been made to rear Dippers from the nest, and the late Mr. A. D. Bartlett published some useful remarks on his successful treatment of the young in captivity (*Zool.*, 1878, p. 293).

Fam. TURDIDÆ.

MISTLETOE THRUSH. *Turdus viscivorus*, Linnæus.

Pl. 6, fig. 4. Length, 11 in.; wing, 5·75 in.; tarsus, 1·3 in.

Resident, and during the last forty years has greatly increased in numbers. (See Beckwith, "Birds of Shropshire," 1879, p. 6, footnote.)

In the autumn Mistle Thrushes assemble in flocks, and from this circumstance inexperienced observers mistake them for Fieldfares, and report the appearance of the latter often many weeks before the date of their usual arrival. Although

commonly building in a tree at some height from the ground, this bird in the neighbourhood of the Fells occasionally nests in the tops of dry stone walls (Mitchell, "Birds of Lancashire," 2nd edit., 1892, p. 2).

As to the proper mode of spelling the English name of this bird, see the note by Prof. Newton in Yarrell's "British Birds," 4th edit., vol. i. p. 260.

SONG THRUSH. *Turdus musicus*, Linnæus. Pl. 6, fig. 6. Length, 9 in.; wing, 4·5 in.; tarsus, 1·2 in.

Resident; migrating in autumn to the east and south-east. For remarks on its migratory habits, see Newton, *Ibis*, 1860, p. 83.

In dry summers Thrushes' nests are sometimes found without the usual mud lining (*Zool.*, 1887, p. 268; 1889, p. 312; 1893, p. 225), and are not unfrequently built on the ground (*Zool.*, 1887, p. 112; *Field*, April 22 and 29; May 6, 13, and 20, 1899). It has been stated that Thrush and Blackbird occasionally interbreed (Loudon's *Mag. Nat. Hist.*, 1834; Macgillivray, "Hist. Brit. Birds," art. "Thrush;" *Zool.*, 1883, p. 123; 1884, p. 146; and Christy, *Trans. Norf. Nat. Soc.*, iii. p. 588).

FIELDFARE. *Turdus pilaris*, Linnæus. Pl. 6, fig. 5. Length, 10 in.; wing, 5·75 in.; tarsus, 1·3 in.

A winter visitant, arriving with Redwings in October and leaving in April, but occasionally remaining as late as the end of May. Several alleged instances of its nesting in England and

Scotland are on record, but are not free from doubt; for example, in Selkirkshire (Fairholme, *Mag. Nat. Hist.*, 1837, p. 339; Blyth, *op. cit.*, p. 439); at Merton, Surrey (Blyth, *Field*, June 17, 1871). See also A. G. More, *Ibis*, 1865, p. 19; and Bree, *Field*, June 12 and 19, 1869.

REDWING. *Turdus iliacus*, Linnæus. Pl. 6, fig. 7.
Length, 8·75 in.; wing, 4·5 in.; tarsus, 1·1 in.

A winter visitant, arriving with Fieldfares in October and leaving in April. Reported to have nested in Surrey, Middlesex, Leicestershire, Shropshire, North Wales, Orkney, and the Outer Hebrides (see A. G. More, *Ibis*, 1865, p. 19); in Yorkshire, at Kildale (*Zool.*, 1845, p. 1056), at Glaisdale (*Zool.*, 1873, p. 3411), and near York (*Zool.*, 1879, p. 460). Blyth reported (*Mag. Nat. Hist.*, 1834, p. 242) that "both the Redwing and the Fieldfare have been repeatedly seen throughout the summer in a wood called the Wood of Logie, upon the estate of Sir John Forbes, at Fintry, in Aberdeenshire." A hybrid Redwing and Fieldfare is described and figured in the *Ibis*, 1898, p. 317.

BLACKBIRD. *Turdus merula*, Linnæus. Pl. 6, figs. 1, 2.
Length, 10 in.; wing, 5 in.; tarsus, 1·3 in.

Resident; migrating eastward and southward in autumn, at which season sportsmen when partridge shooting find numbers in the turnip fields.

Pied Blackbirds are not unfrequently met with, and more rarely specimens entirely white, but with

eyes of the normal colour and straw-coloured legs. An interesting case is reported in *The Field*, Jan. 2, 1897, in which a pied hen Blackbird frequented the same garden for four consecutive years, and each year its plumage became whiter. In another case three albinos, with pink eyes and yellow bills, were found in the same nest (*Zool.*, 1892, p. 400). That Blackbirds and Thrushes occasionally run as well as hop, is a fact that may be easily verified by any observant person, in spite of popular belief to the contrary. As to the occasional interbreeding of the two species, see the remarks under "Thrush."

RING OUZEL. *Turdus torquatus*, Linnæus. Pl. 6, fig. 3.
Length, 11 in.; wing, 5·5 in; tarsus, 1·3 in.

Resident, chiefly in moorland districts, nesting regularly in the hilly parts of the west and north of England, on the Longmynd and other hills on the Welsh borders, and throughout Scotland, as well as on the mainland of Orkney (Trail, *Zool.*, 1889, p. 35). In the eastern and south-eastern counties of England it is a spring and autumn migrant. Reported to have nested in Essex (*Zool.*, 1879, p. 267). Prof. Newton describes the Ring Ouzel as *a summer visitant* (Yarrell, "Brit. Birds," 4th ed., i. p. 287), but many remain here all the winter (see *Zool.*, 1879, pp. 174, 203, 266; 1886, p. 490; Mansel Pleydell, "Birds of Dorset," p. 22; Beckwith, "Birds of Shropshire," p. 6; and Bull, "Birds of Hereford," p. 9). The Rev. C. L. Eagles writes that

the Ring Ouzel "lives all the year round on the slopes of the Black Mountains in Herefordshire," and adds, "I have shot them *in winter*, and have often found their nests in summer." Mr. R. Service testifies to its appearance in winter (Dec. 9) in Galloway (*Zool.*, 1893, p. 27). In 1895 one was observed at Berwick-on-Tweed on January 7 (*Ann. Scot. Nat. Hist.*, 1897, p. 6). According to Mr. P. D. Malloch, the Ring Ouzel remains in some of its haunts all the year round; a specimen in the Museum at Perth was shot on the Ochils on Feb. 5, 1882 (*Ann. Scot. Nat. Hist.*, 1893, p. 113). Mr. Cordeaux saw two at Kilnsea, in Holderness, on Feb. 25 (*Zool.*, 1893, p. 192). In Ireland, according to A. G. More, the Ring Ouzel breeds in all the mountainous districts.

Fam. SYLVIIDÆ.

HEDGE-SPARROW. *Accentor modularis* (Linnæus).

Pl. 9, figs. 15, 15a. Length, 5·5 in.; wing, 2·75 in.; tarsus, ·8 in.

Resident and generally distributed. One of the commonest foster parents of the Cuckoo; and so noticed by Shakespeare ("King Lear," Act i. sc. 4). In some counties known as "dunnock," in allusion to its dun colour.

REDBREAST. *Erythacus rubecula* (Linnæus). Pl. 7,

figs. 5, 6. Length, 5·75 in.; wing, 2·9 in.; tarsus, 1 in.

Resident and generally distributed. An old English name for this familiar bird is "ruddock,"

A.S. *rudduc*. It is employed by Chaucer ("Parliament of Fowles," l. 349), Spenser ("Epithalamium," i. 82), and Shakespeare ("Cymbeline," Act iv. sc. 2). To Cornishmen it is known as *ruddoc*, and to Welshmen as *rhuddog*. Similarly the dun-coloured hedge-sparrow in some parts of the country is known as "dunnock."

The pretty legend of the Robin covering the dead with leaves and flowers, "the friendless bodies of unburied men," as John Webster wrote in 1638, has been elegantly alluded to by Shakespeare (*l.c.*), Izaak Walton, Drayton, and Collins in his "Dirge in Cymbeline."

REDSTART. *Ruticilla phœnicurus* (Linnæus). Pl. 7, figs. 9, 10. Length, 5·25 in.; wing, 3 in.; tarsus, ·9 in.

A summer migrant to England and Scotland; very rare in Ireland, but has nested in co. Wicklow, at Powerscourt, in 1885, and has since been observed there annually. For some remarks on a female Redstart assuming the plumage of the male, see Gurney, *Trans. Norf. Soc.*, iv. (1889), p. 182. The young in their first plumage are spotted like young Robins.

BLACK REDSTART. *Ruticilla tithys* (Scopoli). Pl. 7, figs. 7, 8. Length, 5·75 in.; wing, 3·3 in.; tarsus, 1 in.

A winter visitant to England; well known in Devon and Cornwall; rare in Scotland and Ireland. In a few instances reported to have nested in

England and Wales, *e.g.* near Rugeley, Staffordshire (Hawkins, *Zool.*, 1852, p. 3503); in Durham (Ormsby's "Sketches of Durham"); in Nottinghamshire, three nests (Sterland, "Birds of Sherwood Forest," p. 67); in Pembrokeshire (More, *vide* Tracy, *Ibis*, 1865, p. 21); and in the Isle of Wight (Bond). Said to have nested also in Essex (*Zool.*, 1888, p. 390); but see Christy, "Birds of Essex," pp. 79–80, *Zool.*, 1889, p. 151; and *Essex Nat.*, ii. p. 256.

It is a scarce bird in Scotland, where, however, it is said to have nested once, near Dumfries (Gray, "Birds of West of Scotland," p. 85). In Ireland Mr. R. Ussher writes that the Black Redstart is not uncommon *in winter* on the south and east coasts, and reaches the Blasquets, off the coast of Kerry. Mr. A. G. More also states that (in small numbers) it is a regular winter visitor to Ireland. It has also been met with at Roscrea, King's Co., Nov. 6, 1897 (*Irish Nat.*, 1898, p. 50).

As to the derivation of the specific name, *tithys*, see "Our Summer Migrants," pp. 79–80.

STONECHAT. *Saxicola rubicola* (Linnaeus). Pl. 7, fig. 16. Length, 5 in.; wing, 2·6 in.; tarsus, ·9 in.

Resident in many districts, frequenting commons and furzy wastes, throughout the year, particularly in Scotland; at the same time partially migratory in spring and autumn. It does not breed in Orkney or Shetland.

By some authors the Stonechats are separated from the Wheatears (*Saxicola*) and placed in the genus *Pratincola* of Koch. I am content, however, to leave them in the genus *Saxicola* of Bechstein, following Prof. Newton in his edition of Yarrell's work.

WHINCHAT. *Saxicola rubetra* (Linnæus). Pl. 7, figs. 14, 15. Length, 5 in.; wing, 3 in.; tarsus, 1 in.

A summer migrant frequenting meadows; less common in Ireland than in other parts of the British Islands, and not found in Orkney or Shetland.

WHEATEAR. *Saxicola œnanthe* (Linnæus). Pl. 7, figs. 11, 12, 12a. Length, 6 in.; wing, 3·75 in.; tarsus, 1·1 in.

A summer migrant, frequenting the downs and warrens both inland and by the sea. A few occasionally remain the winter in England—as noticed by Gilbert White, Letter xiii. to Pennant—and Scotland, but not in Ireland.

One of the good things of Sussex enumerated by John Ray in his "English Proverbs" (ed. 1742, p. 262) was a Bourne Wheatear, by which he intended a Wheatear taken on the downs near Eastbourne by a device formerly much in vogue with shepherds on the South Downs. See an illustrated article by the present writer, entitled, "The Wheatear on the South Downs," in *The Field*, July 28, 1894, in which also will be found some remarks on the derivation of the name "Wheatear."

Since the publication of the first edition of this "Handbook," closer attention having been paid to the outdoor observation of birds, three new species of Wheatear have been added to the British list: the Black-throated, the Isabelline, and the Desert Wheatears. These will be found included in the second part of this volume, and for the habitat of each see Blanford and Dresser's monograph of the genus *Saxicola* (*Proc. Zool. Soc.*, 1874).

✓ REED WARBLER. *Acrocephalus streperus* (Vieillot).

Pl. 8, fig. 12. Length, 5·3 in.; wing, 2·7 in.; tarsus, ·8 in.

A summer migrant to England, where it is chiefly confined to the midland, eastern, and south-eastern counties; very rare in Scotland, and almost unknown in Ireland. It is included in Templeton's "Catalogue of the Birds of Ireland" as having been seen in the vicinity of Belfast, and a bird of this species is stated to have been shot at Raheny, near Dublin (Thompson, "Nat. Hist. Ireland, Birds," vol. i. p. 183). See also Kinahan (*Zool.*, 1860, p. 6961) and Blake Knox (*Zool.*, 1870, p. 2018).

MARSH WARBLER. *Acrocephalus palustris* (Bechstein).

Pl. 8, fig. 11. Length, 5·5 in.; wing, 2·5 in.; tarsus, ·9 in.

For a long time confounded with the Reed Warbler, which it closely resembles, but now believed by many good observers to be, like that species, an annual summer visitant. See remarks on this bird by Victor Fatio, *Bull. Soc. Orn. Suisse*,

1866, "Our Summer Migrants," 1875, pp. 97-99, and Seebohm, "Field Notes on the Reed and Marsh Warblers," *Zool.*, 1880, p. 377. It has been identified, and even found nesting, in Cambridgeshire, Oxfordshire (*Zool.*, 1892, p. 303; 1893, p. 303), Middlesex, Somersetshire (*Zool.*, 1875, p. 4713; 1882, p. 265; 1889, p. 450), and Nottinghamshire (*Zool.*, 1892, p. 332). Blyth detected this bird in several localities near London, and distinguished the song of the two species (*Field*, May 13, 1871). His observations have been confirmed by Bond, Mitford, and myself. (See Yarrell, "Brit. Birds," 4th ed., vol. i. pp. 373-374.)

The eggs differ from those of the Reed Warbler, having a much whiter ground colour, blotched and spotted with dark purple and greenish marks; the nest also differs in being less deep, not entirely suspended, and with no support at the bottom, as is the case with the Reed Warbler.

SEDGE WARBLER. *Acrocephalus phragmitis* (Bechstein). Pl. 8, fig. 13. Length, 4·75 in.; wing, 2·5 in.; tarsus, ·75 in.

A summer migrant, generally distributed, May be known at a glance from the Reed and Marsh Warblers by its having the top of the head and wing coverts streaked instead of plain, while the Aquatic Warbler, to be noticed in Part II., which also has a streaked head, has the distinguishing mark of a white central stripe between the two white ear-stripes. The nest, instead of being sus-

pendent between reed stems, like that of the Reed Warbler, is placed on or near the ground, and the eggs are of a pale yellowish-brown, clouded with darker brown, and sometimes streaked at the larger end with short hair-like black lines.

GREAT REED WARBLER. *Acrocephalus arundinaceus* (Linnaeus). Pl. 8, figs. 10, 10a. Length, 8 in.; wing, 3·75 in.; tarsus, 1·1 in.

An occasional summer migrant to England, where the nest has been found in Surrey, Kent, Hants, Herts, and Northamptonshire. It has also been recorded as nesting in Northumberland (Robson, *Zool.*, 1861, p. 7430), and as having occurred at Wingham, Kent (Hammond, *Zool.*, 1881, p. 463), and at Ringwood, Hants (Mann, *Zool.*, 1884, p. 343). It is unknown in Scotland and Ireland.

GRASSHOPPER WARBLER. *Locustella naevia* (Boddaert). Pl. 8, fig. 14. Length, 5·5 in.; wing, 2·5 in.; tarsus, ·8 in.

A summer migrant to England, generally distributed; common in Durham and Northumberland, but rare in Westmorland, about Kirkby Lonsdale; only heard there twice by Mr. Hindson, who resided in the parish more than fifty years. Farther north it is sporadically met with as far as Arisaig, and even in Skye. More local in Ireland, being oftener seen in the eastern and southern counties.

Remarkable for the character of its song, which resembles the trill of a Grasshopper long continued.



1.



2.



3.



4.



5.



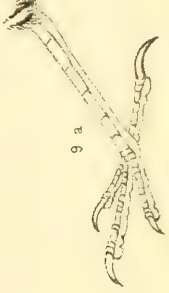
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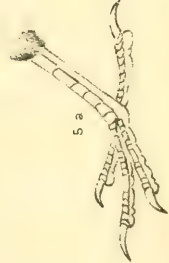
7.



8.



9 a.



5 a.



3 a.



1 a.

1. 1a. Spotted Flycatcher. 2. 3. 3a. Piel Flycatcher. 4. Collared Flycatcher. 5. 5a. Waxwing. 6. Great Grey Shrike. 7. Woodchat. 8. 9. 9a. Redbacked Shrike.

Its attitude whilst singing has been well described from observation by Rev. C. A. Johns in his "British Birds in their Haunts," p. 112.

In West Sussex I have known nests to be found every summer, generally cut out by the mowers. They are not built close to a hedge or at the foot of a bank, as some writers allege, but always out in the open grass in a depression, so that the scythe cuts over them; and there is always a "run" to the nest, like that of a mouse.

In the *Avicultural Magazine*, 1898, p. 189, Mr. P. W. Farmborough has related his experience in rearing the young (which soon died) and keeping the adult bird in captivity for three months.

SAVI'S WARBLER. *Locustella luscinioides* (Savi). Pl. 8, fig. 15. Length, 5·5 in.; wing, 2·5 in.; tarsus, ·8 in.

Formerly a regular summer migrant to the eastern counties until the fen-lands were drained, and used to nest annually in the fens of Wicken, Burwell, and Whittlesea. The eggs have also been taken at Dagenham, Essex, 14th May 1850 (*Zool.*, 1850, p. 2894); at Erith, Kent, 28th May 1853 (*Zool.*, 1853, p. 3945); and in Devonshire (*Ibis*, 1865, p. 23). A nest of Savi's Warbler, described as being composed of the long narrow leaves of the common reed (*Arundo phragmites*), and taken at Baitsbight, Cambridgeshire, is figured in the *Zool.*, 1846, p. 1307. On subsequent more careful examination of this nest, which is preserved in the British Museum, and has been refigured by

Prof. Newton in Yarrell's 4th ed., vol. i. p. 397, it was found that, with the exception of a single leaf of *Cladium*, the whole fabric consists of *Glyceria aquatica*. See the notes on this species in a memoir of Frederick Bond (*Zool.*, 1889, p. 413).

The last recorded specimen of Savi's Warbler met with in England was obtained at Surlingham Broad in June 1856. (Stevenson's "Birds of Norfolk," vol. i. p. 386.)

NIGHTINGALE. *Philomela lusciniæ*¹ (Linnæus). Pl. 7, figs. 1, 1a. Length, 6·5 in.; wing, 3·3 in.; tarsus, 1 in.

A summer migrant; very rare north of Yorkshire, and *à fortiori* in Scotland. Unknown in Ireland. In Wales has been recorded as having occurred once in Montgomeryshire (*Field*, Dec. 30, 1882), and once near Llandyssil, in Cardiganshire, on May 18, 1894 (*Field*, June 2, 1894). Said to be unknown in the extreme west of Devon and in Cornwall.

In the Channel Islands one was heard in full song in April 1894 by Mr. E. D. Marquand at Saints Bay, Guernsey. (*Trans. Guernsey Soc. Nat. Sci.*, 1894.)

That the Nightingale returns at times to the place of its birth has been proved by birds being

¹ I cannot bring myself to discard, as some have done, the time-honoured and classic name of "Philomel," associated as it is with the observations of many old English naturalists, and referred to in some of the most beautiful poems in the English language.

caught and silver wire put round the legs. See *Field*, April 18, 1863. Some practical remarks on catching and keeping Nightingales will be found in Rennie's *Field Naturalist*, i. p. 224.

There is no evidence to show that the Greater Nightingale of Eastern Europe, the *Sprosser* of German naturalists, has ever visited this country.

BLACKCAP. *Sylvia atricapilla* (Linnæus). Pl. 8, figs. 1, 2. Length, 5·75 in.; wing, 2·75 in.; tarsus, ·9 in.

A summer migrant, but occasionally met with in England in the winter, though the Marsh Tit is sometimes mistaken for it. In the hen bird the cap is brown instead of black. Rare in Scotland; a specimen was captured at Balta Sound, Shetland, in October 1865 (Saxby, *Zool.*, 1865, p. 9438). Also rare in Ireland, and apparently unknown in the north-west (Brooke, *Field*, April 1871). A good account is given of this bird by Blyth in an article on British Warblers in Rennie's *Field Naturalist*, vol. i. pp. 134-138.

GARDEN WARBLER OR PETTYCHAPS. *Sylvia hortensis* (Bechstein). Pl. 8, figs. 3, 3a. Length, 5·5 in.; wing, 3 in.; tarsus, ·8 in.

A summer migrant to England and the south of Scotland. In Wales it is common in Cardigan-shire in suitable localities, but rare in Pembroke-shire, although it has been found breeding in the latter county, and in Breconshire. In Ireland it is stated by Thompson to be extremely rare; and

he refers to its occurrence in only two counties, Cork and Tipperary. Mr. Blake Knox, however, has met with it in the county of Dublin; I have seen it in Wicklow; and the late Sir Victor Brooke informed me that in the co. Fermanagh, about Lough Erne, it is common in summer, and nests regularly in the neighbourhood of Castle Caldwell, to the north-west of that county.

This is the *pettychaps*, *beccafico*, and *fig-eater* of Willughby and Ray (*Orn.*, pp. 216, 227). Jesse was assured by a resident at Worthing, "that the *beccafico* annually visits the fig-orchard near that place," and he supposed (erroneously) that it was found in no other part of England ("Gleanings," iii. p. 78). In Italy the name *beccafico* is applied to other small birds; for example, near Florence, to the Sedge Warbler.

WHITETHROAT. *Sylvia cinerea*, Latham. Pl. 8, fig. 4.
Length, 5·5 in.; wing, 2·75 in.; tarsus, ·8 in.

A summer migrant; generally distributed, but scarce in the north of Scotland. One of the best accounts of this bird ever published was contributed by the late Edward Blyth to Rennie's *Field Naturalist*, vol. i., 1833, p. 316. For an instance of a Whitethroat nesting at the unusual height of twelve feet above the ground, see *Zool.*, 1875, p. 4298.

LESSER WHITETHROAT. *Sylvia curruca* (Linnæus).
Pl. 8, fig. 5. Length, 5·25 in.; wing, 2·5; tarsus, ·7 in.

A summer migrant to England. Especially common in the south, where it is known as the

Nettlecreeper, from its habit of nesting amongst nettles and rank herbage in ditches. The older name of *Babillard* seems to have died out. It is rare in Scotland, in Dumfriesshire, near Aberdeen Nov. 1880, and twice in Orkney in the autumn of 1893 and 1896 (*Ann. Scot. Nat. Hist.*, 1897, p. 160, and *Ibis*, 1898, p. 157). Until lately unknown in Ireland. On Oct. 1, 1890, at 4 P.M., wind light, S.W., Mr. James, light-keeper on the Tearaght Rock, off Kerry, shot a Lesser Whitethroat, which he forwarded to Mr. R. M. Barrington (*Zool.*, 1891, p. 186, and *Irish Nat.*, 1892, p. 3). A circumstance not noticed in the text-books is that this bird does not acquire the beautiful pearly-white iris until it is two years old, which has caused it to be generally overlooked. The breast of the cock bird also does not acquire its full roseate tinge until the second summer.

DARTFORD WARBLER. *Sylvia undata*, Boddaert.
Length, 5 in.; wing, 2·25 in.; tarsus, ·8 in.

So named on being first noticed as a British bird at Dartford in Kent by Latham in 1773. Resident in the south of England; rare in the midland and northern counties; unknown in Scotland and Ireland. Frequents large furzy commons, and patches of gorse on the downs, chiefly in Kent, Surrey, Sussex, and Hants, and the heath-lands of Dorsetshire. The following localities for the species, which is seldom met with farther north than lat. 52°, may be mentioned as indicating the northern limits of its distribution :—

Norfolk.—See Southwell's remarks in his Appendix to Stevenson's "Birds of Norfolk," vol. iii. p. 387.

Suffolk.—See Babington's "Birds of Suffolk," pp. 59, 251.

Leicester.—Although included by Harley in his "List of Leicestershire Birds" as having occurred at Melton Mowbray, this proved to be a mistake.

Stafford.—Cannock Chase (M'Aldowie, "Birds of Staffordshire," 1893, p. 47).

Derbyshire.—Melbourne Common (Briggs, *Zoologist*, 1849, p. 2486).

Yorkshire.—Rivelin Valley, South Yorkshire (Clarke and Roebuck, "Handbook of Yorkshire Vertebrates," pp. 21-22).

This observation is remarkable, inasmuch as the late Mr. Cordeaux, so long resident in North Lincolnshire, never detected its presence in that county.

In regard to the distribution southward, it may be noted that the Dartford Warbler has been met with in Cornwall, the Isle of Wight, and Jersey (Harvie-Brown, *Zool.*, 1869, p. 1560).

This little bird is quite unlike any other British Warbler, though in its actions and general appearance it somewhat resembles the Lesser Whitethroat, from which it may be distinguished by the darker tone of the dorsal plumage, and the vinous colour of the underparts. It has a very long tail ($2\frac{1}{2}$ in.), which forms half its entire length, while the wings are remarkably short, measuring barely $2\frac{1}{4}$ in. Another conspicuous feature is the bright orange colour of the orbits, which resemble those of the Long-tailed Titmouse. An excellent account of its habits in a state of freedom and captivity, by the late Edward Blyth, will be found in Rennie's *Field*

Naturalist, i. p. 317. Although generally able to withstand the cold of an ordinary English winter, it is stated on good authority that the severe winters of 1880–81 and 1886–87 had the effect of exterminating this little bird in parts of Hants and Dorset where it was once common.

WOOD WREN. *Phylloscopus sibilatrix* (Bechstein). Pl. 8, fig. 6. Length, 5·5 in.; wing, 3 in.; tarsus, ·75 in.

A summer migrant to England and Scotland. In Ireland it is extremely local (*Zool.*, 1866, p. 300). Mr. H. B. Murray of Clonmel, Co. Tipperary, identified it in his neighbourhood (*Field*, May 25, 1867); the late Sir Victor Brooke informed me that he shot a Wood Wren in his park in the Co. Fermanagh in June 1870; and Mr. Blake Knox of Dalkey had a specimen which was killed with a catapult at Glen Druid, Co. Dublin.

Mr. H. Chichester Hart obtained a specimen in beech woods at Glenalla, Co. Donegal, in June 1878, and saw several pairs in the oak woods of Derrybawn, Glendalough, Co. Wicklow (*Zool.*, 1878, p. 348). In June 1879 he again met with this species in the oak plantations of Derrybawn (*Zool.*, 1879, p. 341; 1891, p. 302), and in May 1896 saw and heard several at Carrablagh and Glenalla, in Co. Donegal (*Zool.*, 1896, p. 195).

The Wood Wren is much greener on the back and whiter on the underparts than either of its congeners, and has a well-defined superciliary streak of sulphur-yellow, which in the Willow Wren and

Chiff Chaff is much shorter and paler. The legs of the Wood Wren and Willow Wren are brownish flesh-colour, while those of the Chiff Chaff are dark brown.

WILLOW WREN. *Phylloscopus trochilus* (Linnæus).

Pl. 8, fig. 7. Length, 5 in.; wing, 2·6 in.; tarsus, ·75 in.

A summer migrant, generally distributed, arriving in April and leaving in September. Although difficult to distinguish at a little distance from the Chiff Chaff, which it resembles in general appearance, it may be detected by its notes, which are more varied and songlike than the monotonous disyllabic call of the Chiff Chaff, which has obtained for the latter its English name.

CHIFF CHAFF. *Phylloscopus rufus* (Bechstein). Pl. 8, fig. 8. Length, 4·75 in.; wing, 2·4 in.; tarsus, ·6 in.

A summer migrant, generally distributed, although rare in the north of Scotland.

Not only is the Wood Wren the largest of the three, but it has comparatively the longest wings and the longest legs. The wings when closed cover three-fourths of the tail. In the Willow Wren, under the same circumstances, less than half the tail is hidden. The Chiff Chaff's wing is still shorter. After examining a large series of these birds, I have come to the conclusion that, as regards the wings, the following formulæ may be relied on (the first primary is quite rudimentary, and is therefore not taken into consideration):—Wood Wren, 2nd

primary = 4th ; 3rd and 4th with *outer* webs sloped off towards the extremity. Willow Wren, 2nd = 6th ; 3rd, 4th, and 5th sloped off. Chiff Chaff, 2nd = 7th ; 3rd, 4th, 5th, and 6th sloped off.

GOLDEN-CRESTED WREN. *Regulus cristatus*, Koch.
Pl. 9, figs. 11, 12, 12a. Length, 3·5 in. ; wing, 2 in.

Resident in fir woods, chiefly in the northern and eastern counties. Great numbers arrive in autumn from the Continent, crossing the North Sea, where they are well known to the fishermen from their repeatedly resting on the herring-boats. See Selby, "Illustr. of Brit. Orn.," i. p. 230 ; Blyth, *Field Nat.*, i. p. 467 ; Stevenson's "Birds of Norfolk," i. p. 136 ; and Booth's Catalogue of Birds in his Museum, 2nd ed., 1896, p. 19. On the Yorkshire coast, near Redcar, a Gold Crest was seen to arrive in October on the back of a Short-eared Owl (Nelson, *Zool.*, 1882, p. 73. See also *Field*, March 31, 1888). In Scotland it remains throughout the year ; in Ireland it is also resident and common.

FIRE-CRESTED WREN. *Regulus ignicapillus* (Brehm).
Pl. 9, figs. 13, 14. Length, 3·75 in. ; wing, 2 in.

Occasional late autumn and winter visitant, chiefly to the eastern and southern counties of England—seldom north of the Thames. Reported to have been once met with in Scotland, in East Lothian, and unknown in Ireland.

This species has a much less extended range northward than *R. cristatus* ; is unknown in Scandi-

navia, barely reaches Denmark, and does not occur to the north-east of the Baltic provinces of Germany. Its status as a British bird has been discussed by Mr. J. H. Gurney (*Zool.*, 1889, p. 172), who regards it as a winter visitor, arriving by a lateral migration from Germany.

Prof. Newton informs me that the supposed nest of this bird, found at Blonorton, particulars of which were communicated to Hewitson for his "Eggs of British Birds," proved to belong to the Golden-crested Wren.

Fam. TROGLODYTIDÆ.

COMMON WREN. *Troglodytes parvulus*, Koch. Pl. 17, figs. 9, 9a. Length, 4 in.; wing, 2 in.; tarsus, .75 in.

Resident, and everywhere common, but to a certain extent migratory in spring and autumn: see my note on Wren observed crossing a grouse moor, *Zool.*, 1887, p. 431.

The Wren of Shetland is, on an average, larger than the typical bird, though usually rather smaller than the Icelandic and Faroese form, *Troglodytes borealis* (*Zool.*, 1891, p. 294). The St. Kilda Wren, described and figured by Seebohm (*Zool.*, 1884, p. 333), and by Dixon (*Ibis*, 1885, p. 80, Pl. 3), as *Troglodytes hirtensis*, so far from being, as supposed, a newly discovered species, was long ago noticed by Martin in his "Voyage to St. Kilda" (1698), and by the Rev. Kenneth Macaulay in his "History of St. Kilda" (1764). Moreover, the supposed points of



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1. 2. Blackbird, ♂. ♀. 3. Ring Ousel. 4. Mistletoe Thrush. 5. Fieldfare. 6. Song Thrush. 7. Redwing.
8. 9. Siberian Thrush, adult & young.

difference are all observable in specimens from various parts of Europe, so that it cannot be regarded as specifically distinct from our well-known *Troglodytes parvulus*. See Dresser, *Ibis*, 1886, p. 43; *Zool.*, 1889, p. 116; and Saunders, "Manual," p. 107. See also the remarks on the Wren observed in St. Kilda by R. M. Barrington, *Zool.*, 1884, p. 383.

Fam. C E R T H I I D Æ.

TREE CREEPER. *Certhia familiaris*, Linnæus. Pl. 17, figs. 10, 10a. Length, exclusive of curved bill, 4·5 in.; wing, 2·5 in.; tarsus, ·65 in.

Resident and generally distributed. As to the differentiation of the British from the Continental form, see *Ibis*, 1897, p. 615, and 1898, p. 177.

Fam. S I T T I D Æ.

NUTHATCH. *Sitta cæsia*, Meyer. Pl. 9, figs. 10, 10a. Length, 5·5 in.; wing, 3·25 in.; tarsus, ·8 in.

Resident in England, rare in Scotland, and not found in Ireland. Col. Edward Cooper turned out some at Markree Castle, Co. Sligo, which I procured for him from the late Mr. Borrer of Cowfold, Sussex, but they were not seen again (*Zool.*, 1879, p. 424). Some young Nuthatches, carried from Cowfold to Henfield (five miles), where they were placed in an outdoor aviary, were followed by the parent birds, which continued to feed them through-

out the summer ("A Story of Nuthatches," *Field*, Oct. 4, 1873).

This bird does not invariably nest in the hole of a tree, bank, or wall, but occasionally *builds a nest*. See F. Bond's account, with illustration, of nest built in a haystack at East Grinstead (*Field*, Oct. 28, 1871, and *Zool.*, 1871, p. 2850). Two pairs were found nesting in a sandbank at Farncombe, Surrey (*Zool.*, 1888, p. 309), and another pair in the old nest of a magpie, lining it with mud, leaving an aperture on one side (*Field*, May 13, 1893).

The Scandinavian Nuthatch described by Linnæus as *Sitta europæa* (*Syst. Nat.*, i. p. 177) differs from that found in Great Britain; and the latter, therefore, should be distinguished as *Sitta cæsia*, that being the oldest name applied (by Meyer, "Taschenb. Deutsch. Vögel," i. p. 128) to the same species as observed in Germany.

Fam. PARIDÆ.

GREAT TITMOUSE. *Parus major*, Linnæus. Pl. 9, figs. 1, 1a. Length, 5·5 in.; wing, 3 in.; tarsus, ·75 in.

Resident, generally distributed, and common. As to its alleged destruction of honey-bees, see *Zoologist*, 1876, p. 4873, and *Field*, January 1890.

BLUE TITMOUSE. *Parus cæruleus*, Linnæus. Pl. 9, fig. 2. Length, 4·5 in.; wing, 2·5 in.; tarsus, ·65 in.

Resident, generally distributed, and common. The most characteristic traits in its life-history are

its destructiveness to fruit, especially pears, and its partiality for nesting in odd places, such as a pump, letter-box, lamp, or an inverted empty flower-pot, it being the habit of all Tits to nest in holes, generally in decayed trees.

CRESTED TITMOUSE. *Parus cristatus*, Linnæus. Pl. 9, fig. 5. Length, 4·5 in.; wing, 2·5 in.; tarsus, ·75 in.

Resident in Moray, Ross, Inverness, Elgin, and Banff (where I have seen it in the beautiful woods bordering the Spey), and in Aberdeenshire. The hen bird has a shorter crest and less black on the throat. For a note on its habits as observed in Scotland, see Saxby, *Zool.*, 1862, p. 7998. In regard to England, there are a few scattered records of its occurrence in Durham, Cumberland, Yorkshire (confirmed *Zool.*, 1872, p. 3021), Suffolk, Middlesex, and Hampshire where it has once been obtained in the New Forest. Its appearance so far south, however, must be regarded as purely accidental (see Gurney, *Zool.*, 1890, p. 210), although it is to be found in parts of France, and throughout Spain, where it is common in the cork woods.

COAL TITMOUSE. *Parus ater*, Linnæus. Pl. 9, fig. 3. Length, 4·25 in.; wing, 2·4 in.; tarsus, ·65 in.

Resident and generally distributed. The British form has been distinguished from the Continental species under the name *Parus britannicus* (Sharpe and Dresser, *Ann. Mag. Nat. Hist.*, ser. 4, viii. p. 437), but so many intermediate links occur between

the two forms, that it is impossible to regard them as specifically distinct. Moreover, Mr. J. H. Gurney has obtained specimens in Norfolk which are indistinguishable from the Continental form.

As to the altered distribution of the Coal and Marsh Tits in Dumfriesshire, see *Zool.*, 1895, p. 349.

MARSH TITMOUSE. *Parus palustris*, Linnæus. Pl. 9, fig. 4. Length, 4·4 in.; wing, 2·4 in.; tarsus, ·65 in.

Resident, and not uncommon in England, but scarce in Scotland, where it is found chiefly in the Lothians. (See Harvie-Brown, *Trans. Perthshire Soc. Nat. Sci.*, 1894, p. 97.) Rare in Ireland, where it has been met with in Antrim, Dublin, and Kildare.

The Marsh Tit may be always distinguished from the Coal Tit by the absence of white on the nape and on the wing coverts.

The British form of the Marsh Tit has been distinguished from the Continental type as *Parus palustris dresseri*, Stejneger (*Proc. U.S. Nat. Mus.*, ix. pp. 201-202, and *Zool.*, 1887, p. 379), but in a large series of both forms it is impossible to separate them.

LONG-TAILED TITMOUSE. *Acredula caudata* (Linn.). Pl. 9, figs. 8, 9. Length, 5·5 in.; wing, 2·5 in.; tarsus, ·65 in.

Resident and generally distributed. A good account of its habits is given by Blyth, *Mag. Nat. Hist.*, 1837, p. 199. See also the remarks on British Tits in Rennie's *Field Nat. Mag.*, i. p. 262. The propriety of separating the Long-Tailed Tits

from the true *Pari* has been long since admitted by naturalists; and, as Dr. Günther has pointed out (*Ibis*, 1865, p. 97), the employment of the generic term *Acredula* of Koch to designate the former group is strictly in accordance with the rules of zoological nomenclature laid down by the British Association. Dr. Sharpe has suggested (*Ibis*, 1868, p. 295) that, as the Long-tailed Titmouse of Scandinavia (described by Linnæus as *Parus caudatus*) differs from the British species in having a white head, the latter should be distinguished as *rosea* of Blyth, that name being the next in order of precedence. The white-headed form, however, occasionally occurs in this country. I have seen two specimens, as recorded in my "Birds of Middlesex," p. 59, which were taken in the north of England; it has been found in Cumberland (Macpherson, "Fauna of Lakeland," p. 105), and the late Mr. Gatcombe saw one in Somersetshire (*Zool.*, 1872, p. 2943). Moreover, the British form, *A. rosea*, occurs in France, the Netherlands, and Western Germany. A noticeable feature in both is the colour of the orbits, which is bright orange, as in the Dartford Warbler.

Fam. PANURIDÆ.

BEARDED TITMOUSE. *Panurus biarmicus* (Linnæus).

Pl. 9, figs. 6, 7. Length, 6·25 in.; wing, 2·25 in.

Resident only in the eastern counties of England, where it was formerly much more abundant

(Gurney, *Zool.*, 1889, p. 291). In February 1819 large flocks were seen at Burlingham (*Trans. Norf. Nat. Soc.*, iii. p. 260). It used to be found in Huntingdon and Cambridgeshire before Whittlesea Mere was drained in 1851, and was abundant in Lincolnshire (Cordeaux, p. 40). In Essex it was once common in the marshes below Barking Creek, where it was known as the *Reed Pheasant*, and in the reed beds at Dagenham and Tollesbury until the year 1858.

When Graves published the 2nd edition of his "British Ornithology" in 1821, he wrote: "The Bearded Titmouse is found in considerable abundance in the extensive tracts of reedland from Woolwich to Erith in Kent, and is occasionally seen in the like situation in various places adjacent to London. "We have found it," he says, "on the side of the Surrey Canal on Sydenham Common, also on the roadside leading from Bermondsey to Deptford, called Blue Anchor Lane, and have seen it in numbers about Erith." From all these localities it has long since disappeared.

In Sussex, Montagu met with it amongst the reed beds near Winchelsea, and Borrer procured specimens from Amberley and Lancing. In Devonshire, Topsham and Thorverton, on the Exe, were formerly localities for this bird, and it has been met with on the Fleet at Abbotsbury, Dorsetshire, as well as accidentally in Cornwall.

Its present status in Norfolk has been recently (1899) traced with much care by Mr. J. H. Gurney



1. 17. Nighthawk. 2. 3. 4. Blackthroated Warbler, ♂, ♀ young. 5. 6. Redstart, old & young. 7. 8. Black Redstart, ♂, ♀.
 9. 10. Redstart, ♂, ♀. 11. 12. Wheaten, ♂, ♀. 13. Blackthroated Wheaten, ♂, ♀. 14. 15. Whinchat, ♂, ♀. 16. Stonechat, ♂, ♀.

(*Trans. Norf. Nat. Soc.*, vol. vi. pp. 429–438). Mr. John Young has been very successful in his treatment of the Bearded Tit as a cage bird, and has induced it to breed in confinement (*Field*, Oct. 1875, and *Zool.*, 1875, p. 4693).

In a state of freedom it feeds on insects, small thin-shelled mollusca, and the seeds of the reed. Its singular, tinkling notes may be well imitated by balancing a penny on the middle finger of each hand and striking the edges together.

Fam. AMPELIDÆ.

WAXWING. *Ampelis garrulus*, Linnæus. Pl. 5, figs. 5, 5a. Length, 8 in.; wing, 4·5 in.; tarsus, 0·9 in.

An irregular winter visitant, occasionally appearing in the eastern and north-eastern counties in large flocks. It was particularly numerous in the winters of 1830–31, 1834–35, 1849–50, 1866–67, 1872–73. Although more frequently met with in the north and east, it has been observed in almost every county in England to the south and south-west; but it is of very rare occurrence in Ireland.

Stevenson's account of the plumage of the Waxwing (*Trans. Norf. Nat. Soc.*, iii. pp. 326–344) should be referred to. He dissected 69 specimens, 41 males and 28 females, and found that the number of waxlike tips on the secondaries is variable. Of the males examined, 3 had 4 tips, 7 had 5, 14 had 6, 14 had 7, and 3 had 8; of the females, 1 had 2, 4 had 3, 7 had 4, 6 had 5, 7 had 6,

2 had 7, and 1 had 8, thus disproving Yarrell's statement (since corrected in the 4th edition), that the female Waxwing "has never more than five." Macgillivray was nearer the mark when he stated that the greatest number is seven.

Sir Oswald Mosley, of Rolleston Hall, near Burton on Trent, has recorded in the *Zoologist*, under date June 13, 1868, having watched a pair of these birds with their young ones for upwards of a week in the grounds near the house. One of the young birds was caught, and both the parents came to it. The nest was built in a Douglas's pine, about twenty yards above the ground, and consisted of wool intermixed with fibres of grass and bits of fir.

John Wolley's account of the discovery of nests and eggs of the Waxwing in Russian Lapland, as narrated by Prof. Newton (*Ibis*, 1861, pp. 192-06), is one of the most interesting stories of bird-nesting on record.

Fam. MOTACILLIDÆ.

PIED WAGTAIL. *Motacilla lugubris*, Temm. Pl. 10.

Length, 7·3 in.; wing, 3·5 in.; tarsus, 0·9 in.

Resident, migrating southwards in autumn. Flocks of 70, 150, 200, and 300 have been observed in Scotland and in Yorkshire. See Fourth Report on Migration, 1882, pp. 67-68. Its arrival from the Continent on the shores of Sussex about the middle of March was carefully observed by the late A. E. Knox, and described by him in

his "Ornithological Rambles in Sussex," 1855, pp. 81-82.

WHITE WAGTAIL. *Motacilla alba*, Linnæus. Pl. 10, figs. 7, 8, 8a. Length, 7·3 in.; wing, 3·5 in.; tarsus, 0·9 in.

A summer migrant, but by no means so common nor so widely distributed as the Pied Wagtail. It may be distinguished from the latter by its well-defined black hood, and by the white on the cheeks separating the black of the head from that on the throat and breast, there being no black before the shoulders. It should be observed, however, that the plumage of the Pied Wagtail *in winter* is not unlike that of the White Wagtail; for at that season the black of the head and nape does not extend to the back, which is then nearly uniform ash-grey.

In Ireland the White Wagtail is regarded as a rare summer visitor. It has been obtained by Mr. R. Warren near Ballina, Co. Mayo, and observed on the island of Bartragh, Killala Bay, at the end of April and beginning of May. It has also been met with near Wexford (*Zool.*, 1866, p. 95), and on the river Lee, Co. Cork, on April 20, 1899 (*Zool.*, 1899, p. 418).

GREY WAGTAIL. *Motacilla sulphurea*, Bechstein. Pl. 10, figs. 11, 12. Length, 7·5 in.; wing, 3·5 in.

A local resident, breeding regularly in Scotland, Ireland, the north of England, and Wales, but generally observed as a winter visitant in the south

of England. It has, however, been found nesting in Bucks, Sussex, Dorset, Gloucester, Devon, and Cornwall. It is gregarious at roosting-time (*Zool.*, 1878, p. 390).

The late Lord Lilford observed that this bird, although living chiefly on insects, is in the habit of catching small fish on gravelly shallows (*Zool.*, 1896, p. 47). It feeds also on small fresh-water mollusca.

GREY-HEADED WAGTAIL. *Motacilla flava*, Linnæus.

Pl. 10, figs. 9, 10, 10a. Length, 6·25 in.; wing, 3·25 in.; tarsus, 0·85 in.

An occasional summer visitant. Has been found nesting in Northumberland (*Zool.*, 1870, p. 2343, and 1876, p. 4834). It is rare in Scotland (*Ann. Scot. Nat. Hist.*, 1898) and unknown in Ireland.

YELLOW WAGTAIL. *Motacilla Ravi* (Bonaparte).

Length, 6·25 in.; wing, 3·25 in.; tarsus, 0·85 in.

A summer migrant, arriving in April and departing in September. A common bird during the summer months in the Thames Valley, where numbers may be seen running about amongst the cattle in the meadows by the river-side. In Ireland it breeds regularly about Lough Neagh, and occurs every year in the vicinity of Dublin, where the nest has been found (A. G. More).

Under the generic name *Budytes* Cuvier proposed a separation of the Yellow Wagtails from the Pied Wagtails, on account not only of their prevailing yellow colour, but also their possession of a much

longer hind-claw. In the absence, however, of any other important structural difference, such generic separation seems scarcely necessary.

TREE PIPIT. *Anthus arboreus*, Bechstein. Pl. 10, figs. 6, 6a. Length, 6 in.; wing, 3·3 in.; tarsus, 0·9 in.

A summer migrant to England and Scotland; occurs also in Wales (*Zool.*, 1890, pp. 20, 72). Since the first edition of this work was published, the Tree Pipit has been reported to have been observed in Ireland (Benson, "Our Irish Songbirds," p. 109, and *Zool.*, 1878, p. 348; also Chester Hart, *Zool.*, 1878, p. 454), but More, in his "List of Irish Birds" (1885), casts some doubt on the identification. Note the difference in the hind-claw of this species and the next. Pl. 10. figs. 5a, 6a.

MEADOW PIPIT. *Anthus pratensis*, Linnæus. Pl. 10, figs. 5, 5a. Length, 5·75 in.; wing, 3 in.; tarsus, 0·8 in.

Commonly known as the Titlark, and resident, migrating towards the east and south in autumn. One of the commonest small birds on marshes bordering the sea, as well as on moorlands and wastes, where it is much preyed on by the smaller hawks.

ROCK PIPIT. *Anthus obscurus* (Latham). Pl. 10, figs. 3, 4. Length, 6·25 in.; wing, 3·5 in.; tarsus, 0·9 in.

Resident on most parts of the coast; occasionally found inland at the periods of migration in spring and autumn. On the east coast of England the Scandinavian form *Anthus rupestris* is often met

with in spring and autumn. Cordeaux states that the migratory Rock Pipits which visit the Holderness and Lincolnshire coasts in the autumn are almost exclusively *Anthus rupestris*, which differs from the Welsh form in being more warmly coloured underneath, with a rich buff or cinnamon-coloured breast. This form occurs also on the Norfolk coast in March, migrating eastwards (*Zool.*, 1895, p. 96).

WATER PIPIT. *Anthus spipoletta* (Linnæus). Length, 6·25 in.; wing, 3·5 in.; tarsus, 0·9 in.

An occasional, perhaps regular, visitant in spring and autumn. Probably confounded with the Scandinavian form of the Rock Pipit in many instances, but undoubted examples have been obtained several times on the coast of Sussex, as well as in Lincolnshire (*Zool.*, 1895, p. 348).

The *spipoletta* of Italian authors was the name which Linnæus intended to adopt for this Water Pipit, but by a printer's error the word was misprinted *spinoletta*, and the mistake unfortunately has been copied by subsequent writers. Professor Newton, however, has set the matter right in his edition of Yarrell's "Birds," vol. i. p. 581.

RICHARD'S PIPIT. *Anthus richardi*, Vieillot. Pl. 10, fig. 1. Length, 7·25 in.; bill, 0·5; wing, 3·5 in.; tarsus, 1·1 in.

An occasional visitor from Eastern Europe in late autumn and winter. Its larger size, greater length of leg, and long hind-claw serve to distin-

guish it at a glance from the common Pipits. More than fifty instances of its occurrence in England have been noted. In Scotland Mr. J. G. Millais obtained one near Dunkeld in August 1880. One of the latest specimens was obtained at Caistor, Norfolk, on 11th December 1894, and is now in the Norwich Museum (Gurney, *Zool.*, 1895, p. 102). In Ireland it has not yet been recognised.

The rarer Tawny Pipit, *Anthus campestris* (Linn.), has been met with several times in England, but not so frequently as to entitle it to a place here. It will be found included in Part II. of this volume.

Fam. ALAUDIDÆ.

SKYLARK. *Alauda arvensis*, Linnæus. Pl. 11, figs. 10, 10a. Length, 7 in.; wing, 4·25 in.; tarsus, 1 in.

Resident, yet migrating southwards in large flocks in autumn. Between the end of August and the end of December or beginning of January, the native Larks receive great accessions to their numbers from the Continent. The general line of direction of the incoming birds is from east to west, sometimes from north-east to south-west. See Cordeaux, Report on Migration of Birds, 1880.

For an article on Lark-catching and the use of Lark-mirrors, see my "Essays on Sport and Natural History," pp. 190–200.

For an account of Skylarks nesting in an aviary, see *The Field*, Aug. 25, 1900.

WOODLARK. *Alauda arborea*, Linnæus. Pl. 11, fig.

11. Length, 5·75 in.; wing, 3·6 in.; tarsus, 0·8 in.

A local resident, far less common than the Skylark; migrating in winter to the south. Mr. A. G. More, in his "List of Irish Birds," includes the Woodlark as local and scarce, but resident in small numbers in the counties of Antrim, Down, Armagh, Dublin, Wicklow, Waterford, and Cork. It occurs also as a winter visitor on the east coast (Blake Knox, *Zool.*, 1870, p. 2018). In Sept. 1898 a small flock was observed near Bray, Co. Wicklow, from which one was shot for identification (*Irish Nat.*, 1898, p. 256).

The Woodlark is found in the southern and midland counties of Scotland, and has accidentally been met with as far north as Orkney, a specimen having been shot at Stromness.

This was one of the favourite birds of Gilbert White.

SHORE LARK. *Otocorys alpestris* (Linnæus). Pl. 11, fig. 13. Length, 6·5 in.; wing, 4·25 in.; tarsus, 0·9 in.

An irregular winter visitant, arriving in small flocks on the east coast; of late years more plentiful or more observed (*cf.* Stevenson, "Birds of Norfolk," p. iii. 388).

It is a winter visitor to the east coast of Scotland, probably from Norway, where it is common enough in the breeding season. In Ireland it is unknown. It feeds on grass-seeds, the blossoms

of dwarf plants, and insects, which it sometimes captures on the wing. It resorts much to the sea-shore, where it feeds on small crustacea and minute beetles found under seaweed and driftwood.

A supposed instance of its nesting in Devonshire was recorded many years ago by the late Lord Lilford (*Zool.*, 1852, p. 3707), but there is reason to believe that the bird referred to was the Rock Pipit.

An excellent photograph of a nest of the Shore Lark is given in Pearson's "Voyage to Novaya Zemlya," 1899, p. 76.

Fam. EMBERIZIDÆ.

SNOW BUNTING. *Plectrophanes nivalis* (Linnæus).

Pl. 12, figs. 10, 11, 11a. Length, 6·5 in.; wing, 4·5 in.; tarsus, 0·8 in.

Chiefly known as a winter visitant; often in large flocks on the east and south coasts of England, but resident and breeding in parts of Scotland.

R. Gray, writing in 1871 ("Birds, West Scotland," p. 126), was aware that it frequented certain mountains in Aberdeen, Banff, Inverness, and Ross-shire in summer; and Dr. Saxby had discovered nests in Unst, Shetland (*Zool.*, 1861, p. 7709; 1863, p. 8680; and 1864, p. 9237). Since then its breeding in Scotland has been well established. Cf. Harvie-Brown, *Zool.*, 1886, p. 336, and "Fauna of Sutherland" (1887), p. 140. In the latter work a view is given of the corrie in which a nest was found, and a coloured figure of a young bird. In

the summer of 1896 several broods were reared on the summit of Ben Nevis (*Science Gossip*, Nov. 1896). The food in summer includes the larvæ of *Noctua xanthographa*, a common moth in the haunts of this bird (*Zool.*, 1881, p. 66); in autumn and winter, seeds; and in spring the buds of *Saxifraga oppositifolia*. Prof. Newton has stated (*Zool.*, 1881, p. 103) that the nest of the Snow Bunting is never exposed to the sky, but is always under cover. In Novaya Zemlya, however, Mr. H. J. Pearson and Col. Fielden found several nests of this bird on slabs of rock fully exposed to view ("Beyond Pet-sora Eastward," 1899, pp. 82, 85).

The Snow Bunting has been known to breed in captivity, as in Mr. Stevenson's aviary at Norwich (*Zool.*, 1875, pp. 4290, 4380), and in Mr. John Gatherer's aviary at Elgin, where I myself saw the eggs that were laid (*Zool.*, 1887, p. 391).

During the first week in May 1892 between 3000 and 4000 Snow Buntings were landed on Newcastle Quay, and were afterwards hawked about for sale for eating. The birds were in beautiful plumage, but it is not recorded from whence they came.

LAPLAND BUNTING. *Plectrophanes lapponica* (Lin-næus). Pl. 12, figs. 12, 13, 13a. Length, 6·25 in.; wing, 3·5 in.; tarsus, 0·75 in.

An uncertain visitor in autumn and winter, usually on or near the coast, occasionally in considerable flocks (Cordeaux, *Zool.*, 1894, p. 19; 1895, p. 59). Sometimes associating with larks, and so taken in

lark-nets: a male thus captured by a Brighton bird-catcher, Feb. 24, 1889, was shown to me shortly afterwards.

Almost unknown in Scotland, where two specimens only are recorded to have been obtained.

In Oct. 1892 one was shot on the mainland of Shetland (Evans and Buckley, "Vertebrate Fauna of the Shetland Islands," 1899, p. 92).

In Ireland it appears to be unknown.

COMMON BUNTING. *Emberiza miliaria*, Linnæus.

Pl. 12, fig. 1. Length, 7 in.; wing, 3·5 in.; tarsus, 0·9 in.

Resident; migrating southward in autumn. From its general external resemblance to a Lark it is locally known as the Bunting Lark, and Corn Bunting from its partiality to the neighbourhood of cornfields. It may be readily distinguished by its beak, which is that of a typical Bunting, and by the short hind-toe in marked contrast to the long "heel" of a Skylark. In plumage the two species are so much alike that when crouching on the ground they can scarcely be distinguished.

REED BUNTING. *Emberiza schænielus*, Linnæus. Pl.

12, figs. 7, 8. Length, 6 in.; wing, 3 in.; tarsus, 0·75 in.

Resident and generally distributed; affecting reed beds, patches of loosestrife, and bushes by the river-side. In Scotland it is generally distributed; has been found occasionally in Shetland, and has

been known to have bred in Orkney (Baikie and Heddle, "Fauna Orcadensis"). In Ireland it is resident and common, but is less numerous in winter, from which a partial migration is inferred.

YELLOW BUNTING. *Emberiza citrinella*, Linnæus.

Pl. 12, figs. 2, 3, 3a. Length, 6·5 in.; wing, 3·5 in.; tarsus, 0·75 in.

Resident and generally distributed, even to the far north of Scotland. It has twice been found nesting in Orkney (Baikie and Heddle, "Fauna Orcadensis").

CIRL BUNTING. *Emberiza cirrus*, Linnæus. Pl. 12,

fig. 4. Length, 6·5 in.; wing, 3·5 in.; tarsus, 0·65 in.

Resident in the south and south-west of England; rare in the north and east. Has been found two or three times only in Scotland, and is said to be unknown in Ireland. In regard to the distribution of this bird in the British Islands see Aplin, *Zool.*, 1892, pp. 121–128, and pp. 174–181.

ORTOLAN BUNTING. *Emberiza hortulana*, Linnæus.

Pl. 12, figs. 5, 6. Length, 6 in.; wing, 3·25 in.; tarsus, 0·75 in.

An occasional spring and autumn visitant. First noticed as British from a specimen procured near London, figured in Peter Brown's "Illustrations of Zoology," 4to, London, 1776. It came into the possession of George Allan, with whose collection it passed into the museum at Newcastle-on-Tyne.

The specimen figured by Bewick was caught at sea on the Yorkshire coast (Jardine, "Brit. Birds," ii. p. 311); of rare occurrence in Yorkshire, where one was seen on Guisborough Moor, Cleveland, August 16, 1863 (Atkinson, *Zool.*, 1863, p. 8768). In May 1883 Mr. Cordeaux noted its appearance in North Lincolnshire, and in Sept. 1884 one was shot at Cley, in Norfolk, consorting with Linnets. Several instances of its occurrence in Sussex have been noted by Mr. Borrer, and a few in Middlesex. Very rare in Scotland; in November 1863 two were obtained near Aberdeen; two frequented the Isle of May, Firth of Forth, from April 23 to May 2, when one was shot (Migration Report, 1885, p. 26). Harvie-Brown mentions one in Sinclair's collection ("Fauna of Sutherland," p. 136). Very rare in Ireland; a specimen killed in Clare, from R. J. Montgomery's collection, is in the Museum of the Royal Dublin Society.

Fam. FRINGILLIDÆ.

CHAFFINCH. *Fringilla cælebs*, Linnæus. Pl. 13, figs. 7, 8. Length, 6 in.; wing, 3·5 in.; tarsus, 0·65 in.

Resident; generally distributed and common. The alleged separation of the sexes in winter, which suggested to Linnæus the specific name *cælebs*, a bachelor, has been noticed by Gilbert White (Letter xiii. to Pennant) and other observers; but it is not universally the rule, for in

some parts of the country many individuals of both sexes remain throughout the winter, and do not flock. Moreover, there is reason to suspect that in some cases the observers have confounded the male birds in immature plumage with the females which they then resemble.

Although a favourite cage-bird, the Chaffinch rarely breeds in captivity. Mr. W. T. Page, in the *Avicultural Magazine*, Nov. 1899, has described the nesting of a pair in his own aviary. Materials having been supplied, a nest was constructed, chiefly by the hen bird; four eggs were laid, and incubation lasted fourteen days. The cock bird took no part in this, but fed the hen on the nest.

BRAMBLING. *Fringilla montifringilla*, Linnæus. Pl. 13, figs. 9, 10. Length, 6·25 in.; wing, 3·6 in.; tarsus, 0·75 in.

An annual winter visitant, often remaining till late in the spring. It sometimes occurs in very large flocks, as, for example, at Port Eliot in Cornwall, where one year, in January, many thousands covered the beech trees, feeding on the "mast," which was more than usually abundant (Rodd, "Birds of Cornwall," Introd., p. xlv.). When seen at a distance, either perched or on the ground, the Brambling looks not unlike a Chaffinch, but may be distinguished by the white rump, conspicuous when flying. The late E. T. Booth of Brighton reported his discovery of the nest of a Brambling in June 1866 in Perthshire (*Zool.*, 1877, p. 60).

The hen bird was seen on the nest, and Mr. Booth was too good an observer to have been mistaken. Under exceptionally favourable conditions the Brambling has been known to breed in captivity (Hewitson, "British Birds' Eggs;" Gurney and Fisher, who give a figure of a white variety, *Zool.*, 1846, p. 1312; and Stevenson, "Birds of Norfolk," vol. i. p. 204).

GOLDFINCH. *Carduelis elegans*, Stephens. Pl. 13, figs. 11, 12. Length, 5·25 in.; wing, 3 in.; tarsus, 0·5 in.

Resident and generally distributed, but to a certain extent migratory in spring and autumn. Reported to be much scarcer everywhere now than formerly, owing to the enclosure of commons, the cultivation of waste land (to which it is attracted by the docks and thistle-heads), and the machinations of bird-catchers.

As to its former abundance in the south of England and its present scarcity, see Hussey, *Zool.*, 1860, p. 7144; Booth, "Rough Notes on British Birds;" A. C. Smith, "Birds of Wiltshire," 1887, p. 202; and Report of Parliamentary Committee on Wild Birds, 1873. Mr. Mansel Pleydell, however, reports that in Dorsetshire, since the passing of the "Wild Birds Protection Acts," Goldfinches have become more numerous. See the remarks of Prof. Steenstrup (*Ibis*, 1866, p. 212) on the preference shown by the Goldfinch for the pith of the willow and lime, and the mode in which its long conical beak enables it to extract it.

SISKIN. *Carduelis spinus* (Linnæus). Pl. 13, figs. 13, 14.
Length, 4·5 in.; wing, 2·75 in.; tarsus, 0·55 in.

Nests regularly in Scotland in the fir-woods, but in England, as a rule, it is a winter visitant. The nest, however, has been found exceptionally in Westmorland, Durham (*Zool.*, 1875, p. 4420), Lancashire, Yorkshire (Walton Hall), Oxfordshire, Gloucestershire, Surrey, and Dorsetshire (*Ibis*, 1865, p. 129); and also in Sussex and Middlesex.

In Ireland the Siskin occurs chiefly as a winter visitor, but instances of its breeding in Antrim, Wicklow, Sligo, and Waterford are recorded. See *Zool.*, 1852, p. 3708; 1872, p. 3235; 1874, p. 3914; 1876, p. 4957; 1885, p. 345; and 1886, p. 489.

The name Siskin is derived from the Swedish *siske*, a chirper or piper. In Germany it is known as *Erlenzeisig*, or Alder-finch, an appropriate name, from its partiality for the seeds of the alder. In Sussex it is known as the *Barley-bird*, from its appearance in the barley seed-time. Elsewhere this name is applied to the Yellow Wagtail, but the last-named bird does not usually arrive before April 7th, while barley is generally sown in February and March, when the Siskin is here, but the Yellow Wagtail is not.

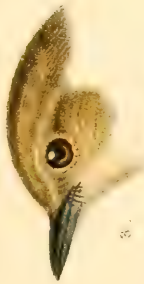
The name *Aberdevine*, applied to this bird in 1735 by Albin, appears to be quite obsolete; at least I do not find that it is now anywhere in use.



2.



1



3.



4



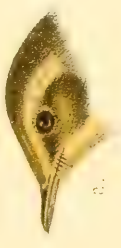
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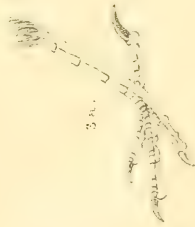
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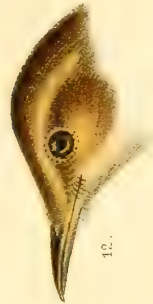
8.



3a.



13



12.



11.



10.



14.



15.



9.



13a.

1. 2. Blackcap, ♂. ♀. 3. 3^a Garden Warbler. 4. Whitethroat. 5. Lesser Whitethroat. 6. Wood Wren. 7. Willow Wren.
8. Chiff Chaff 9. Icterine Warbler. 10. 10^a Great Reed Warbler. 11. Marsh Warbler. 12. Reed Warbler.
13. Sedge Warbler. 14. Grasshopper Warbler. 15. Savi's Warbler.

It is so called by Pennant, "Brit. Zool.," 1768; by Gilbert White (Letter viii. to Barrington), by Montagu ("Orn. Dict. Suppl.," and Letter to White, 21st May 1789), and by Markwick (Observations on Migration, *Trans. Linn. Soc.*, 1789, p. 125). In a "New Gen. Hist. Birds," 2 vols. 12mo, 1745, it is mentioned as "*Aberdavine*, in some places called the Barley-bird." Rutton ("Nat. Hist. Co. Dublin," 1772, i. pp. 315, 342) includes it as "*Abber de Vine*."

LINNET. *Linota cannabina* (Linnaeus). Pl. 13, figs. 17, 18. Length, 5.5 in.; wing, 3 in.; tarsus, 0.65 in.

So called in allusion to its favourite seed, *linum*, flax, and *cannabis*, hemp.

Resident and generally distributed, migrating southward and eastward at the approach of winter, when numbers are taken by bird-catchers. I have seen a pure white one, which was taken near London. Coues, in a monograph of the genus (*Proc. Acad. Nat. Sci. Phil.*, 1861, p. 373; additional remarks, 1863, p. 40), adopts *Ægiothus* of Cabanis as the name of the genus (Cabanis, "Museum Heineanum," 1851, p. 161), type *F. linaria*, L.; but Selater, writing "on the correct generic name of the Linnets" (*Ibis*, 1892, p. 555), with good reason, on the ground of priority, prefers to retain the earlier name *Linota* of Bonaparte (1831), adopted in the former edition of this "Handbook."

TWITE. *Linota flavirostris* (Linnæus). Pl. 13, fig. 19.
Length, 5·25 in.; wing, 3 in.; tarsus, 0·65 in.

A winter visitant to the south, nesting in the north of England and Scotland, and according to Mr. A. G. More, in Ireland from north to south. A pair nested in an aviary in Yorkshire (*Zool.*, 1895, p. 381).

The name Twite, from its note, is significant; "Mountain Linnet," sometimes applied to this bird, is a misnomer (*Zool.*, 1886, p. 220). It is a more slender and elegant bird than the Common Linnet, from which it may be distinguished by its relatively longer tail, which is forked, and by its yellow beak, whence its Latin name *flavirostris*.

MEALY REDPOLL. *Linota linaria* (Linnæus). Pl. 13, figs. 15, 16. Length, 5·26 in.; wing, 2·9 in.; tarsus, 0·6 in.

An irregular winter visitant to England and Scotland. Rarely met with in Ireland, the first recorded specimen having been shot on the 9th February 1876 (*Field*, March 4, 1876) at Levitstown, Athy; others on the Tearaght Rock, Co. Kerry, Sept., Oct. and Nov. 1889-93 (Barrington, *Zool.*, 1891, p. 186, and 1897, p. 513). Two more were shot on Achill Island in February 1893 (*Zool.*, 1894, p. 152).

An unusual number of Mealy Redpolls visited the south of England towards the end of 1895. At Dover the bird-catchers took as many as 200 in

one day. As in the case of the Linnet, the specific name *linaria*, another form of *linota*, has reference to its partiality for the seed of flax (*linum*).

LESSER REDPOLL. *Linota rufescens* (Vieillot). Length, 4.25 in.; wing, 2.75 in.; tarsus, 0.5 in.

The smallest of our British finches; resident in the north of England, Scotland, and Ireland; a winter visitant to the south. With regard to the northern range of this species, see a note by Prof. Newton, *Zool.*, 1870, p. 2223. Yarrell's statement that this bird does not breed further south than Halifax, in Yorkshire, is incorrect. Mr. J. J. Briggs, of King's Newton, found it nesting eight miles south of Derby. Even in Yarrell's time, Wolley had found it breeding annually in Nottinghamshire, where in 1894 Mr. H. K. Swann found three nests. Since then nests have been found in Derbyshire, Staffordshire, and Leicestershire. Mr. Peterson states that the Lesser Redpoll breeds commonly in Leicestershire, and throughout the entire Midland district. According to Mr. H. A. Macpherson (*Zool.*, 1889, p. 229) it breeds in immature plumage, *i.e.* before the male has acquired the rose-pink breast of summer.

TREE-SPARROW. *Passer montanus* (Linnæus). Pl. 13, fig. 3. Length, 5.6 in.; wing, 2.75 in.; tarsus, 0.75 in.

A local resident, chiefly in the eastern and southern counties, and migratory in autumn (Blyth, *Field Nat.*, vol. i. p. 467, and Rodd, "Birds of

Cornwall," p. 56). In parts of the New Forest the Tree-Sparrow is plentiful, and there was a colony for many years at Standlake, in Oxfordshire. Of twenty nests taken there, one was in a faggot-stack, one in a hole of a decayed elm, two in holes of pollard ash, four in holes of pollard willow, and twelve in holes in decayed apple trees in orchards. Thompson ("Nat. Hist. Ireland, Birds," i. p. 256) recalls the fact that the Tree-Sparrow is included in Templeton's "Catalogue of Irish Vertebrate Animals" as "a doubtful native," but adds that to his ornithological friends and himself it is "quite unknown." This was written in 1849; since that date Mr. Blake Knox (*Zool.*, 1870, p. 2018) has detected it in Ireland, where he says it is known to the bird-catchers, and believed by them to be resident. The nest is said to have been taken near Sandymount, Dublin (A. G. More). In Scotland it is local and rare, but has occurred in Argyllshire, St. Kilda, and Skye (*Zool.*, 1886, p. 366).

The Tree-Sparrow is now a resident of the United States, having been imported apparently with the House-Sparrow (*Field*, Feb. 26, 1876).

HOUSE-SPARROW. *Passer domesticus* (Linnæus). Pl.

13, figs. 1, 2. Length, 6 in.; wing, 3 in.; tarsus, 0·75 in.

Resident, generally distributed, and common. Breeds in almost every month of the year; it is not a rare occurrence to find nests and eggs during the winter months.

The question whether Sparrows do more harm than good is one which has excited much controversy, and has given rise to a considerable literature on the subject, especially in the United States, where the "English Sparrow," as it is there termed, was unwisely introduced in 1850, when eight pairs were imported into Brooklyn, N.Y.

Amongst the more important publications on the subject may be mentioned—

Colonel Russell's evidence in the Report of the Parliamentary Committee on Wild Birds' Protection, 1873; and his remarks in Wesley's book on the House-Sparrow, 1885, mentioned below.

Riley, "Insectivorous Habits of the English Sparrow," Bull. U.S. Depart. Agricult. Division, Econ. Orn. and Mamm. (1889).

Elliott Coues, "On the Present Status of *Passer domesticus* in America," Bull. U.S. Geol. and Geog. Survey, vol. v. No. 2 (1879).

Report of Committee of Amer. Orn. Union, "Forest and Stream," Aug. 6, 1885: quoted in Miss Ormerod's Ninth Report on Injurious Insects.

Wesley, "The House-Sparrow," containing observations by various contributors, including Colonel Russell, Mr. J. H. Gurney, and others (1885).

Gurney, "On the Misdeeds of the House-Sparrow," a small octavo pamphlet published by Messrs. Gurney and Jackson (1887).

Hart Merriam and W. B. Barrows, "The English Sparrow in North America, especially in its Relations to Agriculture," 8vo, pp. 405, with Map showing distribution in America, Washington, 1889.

Mr. J. H. Gurney has tabulated the customary and occasional food of *adult* Sparrows for every

month in the year, as well as the food of *young* Sparrows to the time of leaving the nest, and thus summarises the result :—

“It may be said that about 75 per cent. of an *adult* Sparrow’s food during its life is corn of some kind. The remaining 25 per cent. may be roughly divided as follows :—Seeds of weeds, 10 per cent. ; green peas, 4 per cent. ; beetles, 3 per cent. ; caterpillars, 2 per cent. ; insects which fly, 1 per cent. ; other things, 5 per cent. In *young* Sparrows not more than 40 per cent. is corn ; while about 40 per cent. consists of caterpillars, and 10 per cent. of small beetles. . . . Sparrows should be killed for dissection in the afternoon. . . . If caught at night, they have in a great measure digested their food.”

Colonel Russell, of Romford, Essex, giving the results of his examination of a large number of Sparrows shot by him during a period of fifteen years, reports as follows :—

“The food in the old ones was almost all corn during the whole year ; green peas were also found in them in summer ; and in May and June, when corn is scarce, a few wild seeds, chiefly of grass. No insect has been found by me in a Sparrow between September and March. I have not often found one at any season (particularly between June and March) in a Sparrow old enough to feed itself, and have very seldom found any number of insects in one, even when corn could scarcely be got.

“Fifty old Sparrows, and Sparrows which could feed themselves, were killed one summer about my buildings and garden with food in their crops. This food, carefully examined (as in all cases, with a lens), was found to be corn, milky, green, and ripe ; and sometimes green peas from my garden. Only two small insects were found in the whole number. The food in them has been much the same every year.

“On the whole, the deduction from the food-test, during fifteen years, seems to be that Sparrows are useless, and that the insects which would be given to their young by them, if they were allowed to live in numbers, would be so much food taken

when they most want it, from better birds which live entirely, or nearly so, on insects."

GREENFINCH. *Coccothraustes chloris* (Linnæus). Pl. 13, figs. 5, 6. Length, 6 in.; wing, 3·5 in.; tarsus, 0·75 in.

Resident and generally distributed, even to the Outer Hebrides, where it is found in North Uist and Harris; a winter visitant to the Orkneys. The Greenfinch varies much in size and colour. In the South of Europe the resident form is smaller and brighter than the large race found in the British Islands. The adult male may be known by the yellow base to the tail, and by the yellow on the primaries, extending to the shaft of the feather: in the hen bird the primaries are only margined with yellow, which colour does not extend to the shaft. A wild hybrid between this species, locally known as the Green Linnet, and the Goldfinch has more than once been taken (*Field*, March 13, 1897), but must be regarded as extremely rare.

HAWFINCH. *Coccothraustes vulgaris*, Pallas. Pl. 11, figs. 1, 2. Length, 7 in.; wing, 4 in.; tarsus, 0·9 in.

Resident in the midland and eastern counties of England, migrating in spring and autumn; in Wales has been observed in Pembrokeshire, Glamorgan, and Brecon, where it breeds. In the south and east of Scotland, but not in the west. Samuel Yuille, head-keeper at Shotley Hall, Durham, writes that he has occasionally shot Hawfinches in the woods at Gartmore, near Aberfoyle, S.W. Perthshire. In

Ireland it is an occasional winter visitant. Introduced into Co. Sligo by Colonel Cooper (*Zool.*, 1879, p. 425), Co. Antrim (*Irish Nat.*, 1898, p. 51). Of late years this species has become much commoner in England, nesting now in many counties where formerly it was observed as a winter visitant (*Zool.*, 1895, pp. 272, 308). Note the curious falcate shape of the central quill feathers. In summer the beak of the adult male is leaden blue, in winter livid flesh colour. H. Doubleday has given a good account of the habits of this bird, as observed by him in Epping Forest (*Mag. Zool. and Bot.*, i. p. 448).

BULLFINCH. *Pyrrhula europæa*, Vieillot. Pl. 11, figs. 3, 4. Length, 6 in.; wing, 3 in.; tarsus, 0·65 in.

Resident and generally distributed. Has been met with once in Shetland and once in Orkney. It is known locally as *Alpe*, *Alph*, and *Olph*; in Norfolk *Blood-olph* (Sheppard and Whitear, *Trans. Linn. Soc.*, 1825, p. 25; Stevenson, i. p. 234; and Gurney, *Zool.*, 1878, p. 288), and *Nope* in Co. Dublin (Rutty), but in Lancashire the Tits are all called *Nopes*, sometimes with a prefix, as Blue Nope, Black-headed Nope (Mitchell). Black varieties are occasionally taken *in a wild state*; one of the blackest I have seen was trapped at Brentford in July 1875, and the condition of its plumage and claws showed that it was a perfectly wild specimen. Melanism in this bird, as observed in captivity, is usually attributed to an inordinate diet of hemp-seed.

CROSSBILL. *Loxia curvirostra*, Linnæus. Pl. 11, figs. 7, 8, 9. Length, 6 in.; wing, 3·75 in.; tarsus, 0·6 in.

Generally, but erroneously, regarded as a winter visitant, being, in fact, a spring and autumn migrant. Many instances are on record of its nesting in England, as, for example, in Northumberland and Durham (Hancock), Cumberland (Hope), York (Hewitson), Leicester (Harley), Suffolk (Sheppard and Whitear), Bedford (Shelton), Herts (Bond), Middlesex (Harting), Essex (Doubleday), Kent (Jell), Surrey (Hewitson), Sussex (Borrer), Hants (Lewcock), Gloucester (Hewitson), Devon (Hall Jordan), Somerset (Crotch).

To these nesting records published in the former edition of this "Handbook" may be added the following:—Saffron Walden (Clarke, *Mag. Nat. Hist.*, 1837, p. 166). Yorkshire, at Boynton, near Bridlington; at Bramham; at Plumpton, near Harrogate, and at Gilling in Ryedale (Clarke and Roebuck). Leicester (Revs. A. and H. Mathews, *Field Calendar*, Report, 1872). Suffolk (Norgate, *Trans. Norf. Soc.*, iv. p. 168). Devon (Matthew, "Suppl. Birds, Devon," 1895, p. 13). Somerset (Bath), the young received by Bullock (*Zool.*, 1843, p. 39).

In Scotland the Crossbill nests regularly in several counties.

In Ireland some were turned out in Co. Sligo by Col. Cooper (*Zool.*, 1879, p. 425). Mr. Ussher took a nest with four eggs at Cappagh, Co. Waterford, March 23, 1889, now in British Museum, and

others the following year (*Zool.*, 1890, p. 199, and *Irish Nat.*, 1892, p. 6).

Crossbills feed on insects as well as seeds (*Zool.*, 1890, p. 414, and 1895, p. 228). Saxby ("Birds of Shetland") gives a good account of the way in which they deal with rowan-berries, and feed on aphides and small green caterpillars on the sycamore.

For some instructive remarks on change of plumage, see Wheelwright, *Zool.*, 1862, p. 8001. The male bird breeds in a yellow dress before acquiring the red plumage of maturity, which is assumed gradually after two or three moults.

The Parrot Crossbill (*Loxia pityopsittacus*, Bechstein), Pl. 11, figs. 5, 6, which frequents the pine-woods of Scandinavia and Northern Russia, is regarded by some ornithologists as merely a large race of the Common Crossbill, and not entitled even to subspecific rank. See Sharpe, "Cat. Birds Brit. Mus.," vol. xii. p. 439, and Saunders, "Manual," p. 194. On the other hand, see Blyth (who regarded the two forms as distinct), *Zool.*, 1863, p. 8327, and A. G. More, *Zool.*, 1892, p. 76, with editorial note. Prof. Newton regards them as specifically distinct (Yarrell, 4th ed., vol. ii. p. 207), and figures the sternum of each, in which there are manifestly points of difference to be observed. In these circumstances it may be convenient to include the Parrot Crossbill in the second part of this volume, in order to give a list of the records of its occurrence.

Fam. STURNIDÆ.

STARLING. *Sturnus vulgaris*, Linnæus. Pl. 14, figs. 5, 5a. Length, 8 in.; bill, 1 in.; wing, 5 in.; tarsus, 1 in.

Resident, yet to a certain extent migratory in spring and autumn. The late E. H. Rodd observed in Cornwall that Starlings had been gradually moving farther westward every year during the summer, and were formerly quite unknown in the western counties except as winter visitants ("Birds of Cornwall," 1880, p. 266). Mr. Harvie-Brown has noted the increase of the Starling in Scotland (*Ann. Scot. Nat. Hist.*, 1895), where the decrease of Larks has been attributed to the destruction of their eggs by Starlings (R. Service, *Zool.*, 1878, pp. 427, 451).

It is perhaps not generally known that Starlings devour many kinds of fruit, such as currants, cherries, and rowan-berries.

They occasionally, though not invariably, rear two broods in a season; and although usually nesting under eaves or selecting holes in trees, they have been known to build occasionally in shrubs and small trees. White varieties are not so rare as many suppose; some are reported every summer, and cream-coloured, buff, and smoke-coloured varieties are also occasionally met with.

During the late autumn months Starlings congregate in large flocks; as many as sixty or seventy flights, estimated at 50,000 birds, have been ob-

served to assemble in one locality, near Nottingham, within a few minutes of each other. They settle down for the night, sometimes in reed beds, sometimes in plantations. In such roosting-places they often do considerable damage, and it becomes a serious question how to get rid of them. When shooting proves of little avail, it has been found effective to light a fire to windward of the spot, so as to cause the smoke to blow through the assembled flocks. In fine weather Starlings may be observed hawking for flies (*Zool.*, 1866, p. 310; 1867, p. 593; 1895, p. 381), and a tame Starling would fly from the hand and catch moths and butterflies (*Zool.*, 1881, p. 64).

ROSE-COLOURED PASTOR. *Pastor roseus* (Linnæus).

Pl. 14, figs. 6, 7. Length, 8 in.; bill, 0·8 in.; wing, 5 in.; tarsus, 1·25 in.

An irregular visitant during summer and autumn, and met with throughout the British Islands, including the Orkneys and Shetland.

No instance is on record of the nesting of the Rose-Coloured Pastor in Great Britain, but the birds have been seen and shot several times in the middle of summer. Dr. Moore mentions one which was taken in Devon in June, and a young one without a crest in October. A pair were shot in July at Rosemount, near Glasgow, where they had been observed for some days previously.

For information on the breeding habits of the Rose-coloured Pastor as observed abroad, see the account given by the Marchese Antinori of an

extraordinary assemblage of these birds in the breeding-time near Smyrna (*Naumannia*, 1856, p. 407, and *Zool.*, 1857, p. 5668). See also Signor de Betta's account, translated from the Italian (*Zool.*, 1878, p. 16), of a similar but still larger congregation at Villafranca in the province of Verona.

Fam. CORVIDÆ.

CHOUGH. *Pyrrhocorax graculus* (Linnæus). Length, 15 in.; bill, 2 in.; wing, 11 in.; tarsus, 2·25 in.

Resident in sea-cliffs in Ireland, the west of Scotland, Wales, Cornwall, North Devon, and Dorsetshire, where I got the eggs from two nests in May 1865. Formerly also in Sussex and the Isle of Wight. Some remarks on the last haunt of this bird in the Land's End district will be found in the Introduction to Rodd's "Birds of Cornwall."

The Chough is of sedentary habits, and rarely wanders far inland. One was shot at Lindridge, Worcestershire, while perched on the summit of a building, where it was probably resting after a long flight (Hastings, "Nat. Hist. Worcester," p. 66). In August 1887, while watching the sheep-dog trials at Llanberis, North Wales, I heard the note of the Chough, and looking up saw four of these birds passing overhead towards Snowdon.

Choughs are readily tamed, and a pair in the possession of Lady Dorothy Nevill, at Dangstein, Sussex, built a nest and laid eggs, but did not

hatch them. See *Field*, Sept. 23, 1882; *Zool.*, 1882, p. 431; Lord Lilford, *Field*, Sept. 30, 1882; and Ralph Nevill, *Field*, Oct. 7, 1882.

In the *Zoologist* for September 1893, I have shown that the "russet-pated Chough" of Shakespeare ("Mids. Night's Dream," iii. 2) was not the red-billed Chough, but the grey-pated Jackdaw. The latter was commonly called Chough, and russet with some writers meant grey: the head of the Chough, like the rest of its body, is perfectly black.

An example of the yellow-billed Alpine Chough, *Pyrrhocorax alpinus*, was shot near Banbury, Oxfordshire, in April 1881, but had probably escaped from confinement, as this species is not migratory in its habits, and is confined to the mountains of Central and Southern Europe.

RAVEN. *Corvus corax*, Linnæus. Pl. 15, fig. 1. Length, 24 in.; bill, 3 in.; wing, 17 in.; tarsus, 2·75 in.

Locally resident, resorting to high cliffs sometimes inland; more numerous in Scotland, particularly in the west. It is especially abundant in Shetland, where Saxby has seen upwards of forty within the space of a few acres, and hundreds feeding on the carcasses of whales that had been driven ashore and were left to decay ("Birds of Shetland," p. 122).

Ravens, like birds of prey, pair for life; and, like Rooks, repair their old nests very early in the spring. The nest is usually built in a cliff, and often upon an inaccessible ledge, screened from observation from above by overhanging rocks. But

Ravens' nests in trees are also well known. Every naturalist will remember the celebrated "Raven-tree" at Selborne, described by Gilbert White, and "The Raven's Clump" in Petworth Park, of which the late Mr. A. E. Knox has left so pleasing an account in his "Ornithological Rambles in Sussex." In the same county there were formerly Ravens' trees in Burton Park, near Petworth, and in Uppark until 1866 (Gordon's "History of Harting in West Sussex," pp. 257-259). Mr. Miller Christy mentions others in his "Birds of Essex," and there was at least one in Middlesex.

CARRION CROW. *Corvus corone*, Linnæus. Pl. 15, fig. 2. Length, 19 in.; bill, 2.25 in.; wing, 13 in.; tarsus, 2.50 in.

Resident, but, owing to the increased preservation of game, rare in the eastern counties of England, as well as in some parts of Scotland and in Ireland. In 1533 (temp. Henry VIII.) crows were so numerous, and thought to be so prejudicial to the farmers, that an Act of Parliament was passed for their destruction, in which Rooks and Choughs were included (*Zool.*, 1894, p. 47). The inhabitants of every parish were bound for ten years to provide *crow-nets*, of which I have given a description, *Zool.*, 1894, p. 48.

Although usually found in pairs and building isolated nests, the Carrion Crow is sometimes gregarious like the Rook. In the hill districts of mid-Wales, where the former bird to a great extent

replaces the latter, *Corvus corone* may be seen feeding in ploughed fields, and scores resort to the same plantation to roost (Salter, *Zool.*, 1895, p. 140). See also a note on Carrion Crows congregating (Aplin, *Zool.*, 1885, p. 183).

Both Crows and Rooks feed much on fresh-water mussels, which they find by the river-sides at low tide : they drop them from a height to break them open. Crows have been observed taking food from the surface of the water while flying. (Harrison, "Descript. England," prefixed to Holinshed's "Chronicle," 1577; confirmed, *Spectator*, July 25, 1891, and *Field*, June 20, 1896.) A similar observation has been made in the case of the Jackdaw (Johnson's "Gamekeeper's Directory," 1851, p. 95).

Crows will attack rookeries and drive away the rightful owners of the nests (*Field*, April 18 and 25, 1891; May 2, 1891 (E. L. Layard), and *Zool.*, 1896, p. 144). So will Ravens and Herons (*q.v.*).

HOODED CROW. *Corvus cornix*, Linnæus. Pl. 15, fig. 3. Length, 18 in.; bill, 2·25 in.; wing, 12·5 in.; tarsus, 2·25 in.

Resident in Scotland and Ireland; a winter visitant to the east and south of England; rare in the south-west. In Scotland it is said to pair habitually with the Carrion Crow, and on this account has been regarded by some naturalists as specifically identical with that bird. (See Sir W. Jardine's "British Birds," vol. ii. p. 234; Mac-



1. Great Tit. 2. Blue Tit. 3. Coal Tit. 4. Marsh Tit. 5. Crested Tit. 6. Bearded Tit. 7. Long-tailed Tit. 8. Long-tailed Tit. 9. Long-tailed Tit. 10. Nuthatch. 11. Firecrest. 12. Goldcrest. 13. Hedge Sparrow. 14. Hedge Sparrow. 15. Hedge Sparrow.

gillivray, vol. iii. p. 731 ; Thompson, vol. i. p. 309 ; Gray's "Birds of the West of Scotland," p. 170 ; and De Selys-Longchamps, *Ibis*, 1870, pp. 450, 451.) In Yorkshire also it is said to pair habitually with the Carrion Crow (Williamson, *Proc. Zool. Soc.*, 1836, p. 76). See also *Naturalist*, 1865, p. 101 ; Hancock, "Cat. Birds, Northumberland," pp. 32, 36 ; Seebohm, "Siberia in Asia," p. 30 ; Newton, Yarrell's British Birds, 4th ed., vol. ii. p. 274.

ROOK. *Corvus frugilegus*, Linnæus. Pl. 15, figs. 4, 5.
Length, 18 in. ; bill, 2·25 in. ; wing, 12·5 in. ; tarsus, 2·25 in.

Resident and generally distributed. The British Association Reports on migration show that it is a regular autumnal migrant from the Continent to the eastern counties of England. In Oct. and Nov. 1893 an extraordinary number of Rooks were observed on migration. See reports by J. H. Jenkinson, R. M. Barrington, H. S. Byron, and D. Mackenzie (*Field*, March 3, 17, 24, and April 7, 1894). As to the injury done to crops by Rooks, and their propensity to steal the eggs of game birds and wildfowl, see *Zool.*, 1888, pp. 375-379. On the other hand, their utility in destroying the larvæ of the Cockchafer, *Melolontha vulgaris*, the Antler-moth, *Chareas graminis*, and the Crane-fly, *Tipula oleracea*, so destructive to the roots of grain and young clover, and in devouring the roots of the couch-grass, a troublesome weed to the farmer, is well vouched for (*Zool.*, 1866, p. 297). They render

good service also by feeding on the caterpillars of the Oak-moth, *Hybernia defoliaria* (Zool., 1887, p. 109).

Rooks rarely build in poplars, which are not well adapted to carry their large nests; but a few instances of the kind have been noted, as at Hatherley, four miles from Gloucester; between Kirkburton Church and Huddersfield; and near the lodge gate at Theydon Place, Epping, April 1898. At the Tower of London nests were built on the weather-vanes on each turret of the White Tower, and some years ago two pairs of Rooks built their nests and reared their young between the chimney-pots of houses in George Street, Hull.

The nesting of Rooks in autumn has been occasionally noted. In Nov. 1893 Colonel Troyte reported a nest of young at Bampton, North Devon, which the old ones were then feeding.

The interior of the mouth in old and young Crows (both black and grey) is dull pink or flesh colour at all ages, whereas in the Rook the interior of the mouth is pale red on leaving the nest, and eventually becomes dull slate-coloured when the bird is adult. Young Rooks until after their first moult have the face feathered to the base of the beak like Crows, but Mr. Robt. Service procured some which had the face only partially bared in May. He obtained a singular variety in Dumfriesshire, of a chocolate-brown colour, with indistinct darker vermiculations. A similar specimen was exhibited by Prof. Duns in 1889 at a meeting of the Royal Physical Society of Edinburgh. Pied and white varieties are annually reported.

"How to form a Rookery," *Field*, March 11, 1893, March 16 and 23, 1895, and "Encyclopædia of Sport," 1898, *art.* Rook. Articles on the food of Rooks, *Zool.*, 1888, pp. 375-379; on the habits of Rooks and Crows, *Field*, Dec. 20, 1895; and on their concerted action in hunting field-mice, *Zool.*, 1892, p. 355. They pull acorns off the oaks, and have been observed to plant them (*Zool.*, 1896, p. 19; *Proc. Linn. Soc.*, Feb. 1896; and *Field*, April 26, 1879). Like birds of prey, they throw up pellets containing the indigestible portions of their food, *Zool.*, 1866, p. 297, and *Proc. Linn. Soc.*, Jan. 1894. For an account of Rookeries in London see *Zool.*, 1878, pp. 191, 441.

JACKDAW. *Corvus monedula*, Linnæus. Pl. 15, fig. 6.
Length, 13 in.; bill, 1·3 in.; wing, 9·25 in.; tarsus, 1·75 in.

Resident, and especially numerous in the neighbourhood of sea-cliffs, where it has been observed to drive away the Choughs. A Jackdaw's nest built in the bell-tower of Eton College Chapel was a mass of sticks ten feet high. It is figured by Jesse in his "Scenes and Tales of Country Life," 1844. A similar nest twelve feet high was found in the tower of Hillington Church, near Lynn (*Zool.*, 1869, p. 1847).

Jackdaws occasionally build open nests in the branches or forks of trees when ruins or hollow trees are not available. See *Field*, May 15 and 22, 1875, and May 26, 1894; also *Zool.*, pp. 185, 823, 9572. In Uppark, Sussex, in the spring I have

often seen Jackdaws perched upon the backs of the Fallow-Deer plucking out hair with which to line their nests. White varieties are not very rare.

In former times the Jackdaw was commonly known as the Chough, and so styled in the churchwardens' accounts and in Acts of Parliament (*Zool.*, 1893, p. 333, and 1894, p. 48). It is probably the russet-pated Chough of Shakespeare. See p. 94.

MAGPIE. *Pica rustica* (Scopoli). Pl. 15, figs. 7, 7a.
Length, 18 in.; tail, 10 in.; wing, 7·75 in.; tarsus, 2 in.

Resident, and in many places common, notwithstanding its persecution by gamekeepers. Introduced into Ireland (*Zool.*, 1881, p. 480; 1891, p. 247; *Irish Nat.*, 1893, pp. 96, 113). Although usually to be seen singly or in pairs, Magpies have been observed coming into plantations at roosting-time in flocks (*Zool.*, 1861, p. 7817; 1862, p. 7846; 1868, p. 1405; 1876, pp. 4879 and 4907; *Field*, April 7, 14, 21, 1900; Stanley's "History of Birds," p. 193, and Newton, ed. Yarrell, vol. ii. p. 316).

The normal colour of the beak in the Magpie is black, but in two instances a variety has been met with in England having a yellow beak, in this respect resembling *Pica nuttalli* of California (*Zool.*, 1867, pp. 706, 757, 877, 1016).

JAY. *Garrulus glandarius* (Linnæus). Pl. 15, fig. 8.
Length, 14 in.; bill, 1 in.; wing, 7·25 in.; tarsus, 1·75 in.

Resident and generally distributed, except in Ireland, where, according to Mr. R. Ussher, the

stronghold of this species is in the basin of the Suir, the Barrow, and the Nore, beyond which its range becomes restricted. It has been met with in Louth and Limerick (*Zool.*, 1896, p. 22), and I have seen a specimen from Portarlington, Queen's County, in Mus. Roy. Soc. Dublin. In England it is a regular autumnal migrant to the eastern coasts.

Formerly a regular resident in Ayrshire and Dumfriesshire, and fairly common, but now only a casual visitant. It has once been met with in Shetland.

Though usually a noisy and demonstrative bird, it becomes one of the most silent and retiring during the breeding season. It is well known to kill young pheasants and partridges (*Field*, Aug. 7, 1875), blackbirds, thrushes, and other small birds, and to suck eggs; hence the not unmerited retribution exacted by gamekeepers. For different methods of trapping Jays, see the *Field*, Aug. 5, 1876, and Jan. 20 and 27, 1877.

Fam. HIRUNDINIDÆ.

SWALLOW. *Hirundo rustica*, Linnæus. Pl. 17, figs.

4, 4a. Length, 7·5 in.; wing, 4·75 in.; tarsus, 0·5 in.

Our three British Swallows have been placed by systematists in three different genera, though they all agree in having the bill short, depressed and wide at the base, the nostrils basal, oval, and partly closed by a membrane; the wings with *nine* primaries, long and pointed; and the tail of twelve

feathers much forked. What, then, are the differences which are now commonly regarded as generic? They are to be found chiefly in the structure of the feet. In the Swallow these are slender and bare; in the Martin, slender and closely feathered above; while the Sand Martin has a little tuft of feathers on the tarsus just above the hallux. A difference also will be noted in the form of the tail. In the Swallow the outermost tail-feather is remarkably elongated and attenuated; in the Martin, this is not so, and the tail is not so conspicuously forked; in the Sand Martin it is still less forked and relatively shorter. On the wing the Swallow may be known by its uniformly coloured steel-blue back and long outer tail-feathers; the Martin, by its white rump and shorter forked tail; the Sand Martin, by its small size and dull brown plumage.

A summer migrant, arriving early in April and departing in October and November. For dates of latest stay in autumn and winter months, see summary of observations, *Zool.*, 1881, p. 62, and an article by the present writer, "Belated Swallows," *Field*, Jan. 30, 1892. For appearance in December, *Zool.*, 1881, p. 62, and 1887, p. 269; and from Dec. 25 to Jan. 3 in Cornwall, Couch, "Illustrations of Instinct," p. 132. In *The Field*, Nov. 20, 1875, the late Dr. C. R. Bree, of Colchester, wrote: "I have a nest and eggs of the Chimney Swallow, taken while the old bird was sitting on them in the middle of December at Walton on the Naze;" and in *The Field* Dec. 14, 1895, Mr. J. C. Macaulay reported

that on Dec. 3 his son found a Swallow's nest containing four eggs which were slightly incubated. Two and even three broods are reared.

Some curious sites for Swallows' nests have been recorded, *e.g.* one built of the usual materials was placed on the slender branch of a horse-chestnut, about twenty feet from the ground, at Sibsey Vicarage, Boston, Lincolnshire (Besant, *Field*, Sept. 5, 1885; *Zool.*, 1886, p. 486). Another built on a spray of jasmine, about eight feet from the ground, against the house, but a foot away from the wall, and anchored to some sprays of Japanese honeysuckle, at Iden Parsonage, Rye, Sussex (Bates, *Field*, Sept. 12, 1885). In both these cases the young were reared. A nest built in a tree at Maghull, Lancashire, was formed like the nest of a Chaffinch amongst the twigs (Mitchell, "Birds of Lancashire," 2nd edit., p. 56). Gilbert White mentions a Swallow's nest that was built on the wings and body of an owl that hung dead and dry from the rafter of a barn, and another that was placed on the handles of a pair of garden-shears that were stuck up against the boards in an outhouse (Letter xviii. to Daines Barrington). Swallows' nests have also been found on a hook hanging in a shed; on a curtain-pole in a house (*Zool.*, 1888, p. 355); on a hanging lamp (*Zool.*, 1886, p. 416), and on a lamp-bracket (Stanley, "Familiar Hist. Birds," p. 250); against glass (Jesse, "Gleanings in Nat. Hist.," ii. p. 157), and inside a schoolroom where nearly a hundred children were in daily attendance. For

further curious situations see *Zool.*, 1887, p. 467, and 1888, pp. 25, 355.

White Swallows are occasionally seen. One which I shot from a punt in Pagham Harbour, Sussex, in Sept. 1871, as recorded in the *Field*, Sept. 30, 1871, is preserved in the Natural History Museum, South Kensington. An albino Swallow, which had been wounded by a shot in the wing, was captured at Westgate-on-Sea in October 1892, and was kept alive for some time, becoming very tame and taking flies from the hand (*Times*, Oct. 10, 1892). In the *Zool.*, 1894, p. 59, Mr. Mansel Pleydell wrote that during the previous summer a brood of four Swallows was reared in a shed at Bere Regis, Dorsetshire, all of which were white. Of these, three were seen as late as October in company with other Swallows, preparing for migration. Other instances are noted, *Zool.*, 1894, p. 430, and 1896, pp. 54, 305.

Hirundo savignii, a chestnut-breasted form found in Egypt and Nubia, has been recorded to have been shot at Teesmouth, Durham (*Ibis*, 1866, p. 423), but Mr. J. H. Gurney subsequently corrected the mistake (*Ibis*, 1875, p. 519).¹

As to where Swallows go in winter and on what they feed, see details in my "Summer Migrants." They moult during their absence from this country, and are in full plumage on their return in spring.

For reported cases of marked Swallows returning

¹ *Hirundo savignii*, Stephens, 1817; *cahirica*, Lichtenstein, 1823; and *riocouri*, Audouin, 1825.

annually to their old haunts, see *Field*, Sept. 30, 1876; June 4, 1881; Dec. 10, 1887; Jan. 30, 1892; and July 1, 1893; also *Zool.*, 1895, p. 449.

As to the speed of Swallows, see *Zool.*, 1886, p. 299, 1888, p. 308, and 1895, p. 379. Trained as letter-carriers, *Zool.*, 1899, pp. 397-398. One killed by a golf-ball, *Field*, Sept. 12, 1891; another struck by a cricket-ball, *Field*, Aug. 25, 1894. Mr. Barrett of Wintershall, near Godalming, has a stuffed specimen which was killed by a cricket-ball bowled by F. Cæsar, a well-known professional, during a match played at Godalming in 1849 or 1850.

Anglers have repeatedly reported Swallows perching on their rods (*Zool.*, 1886, p. 417), and have captured them with artificial trout-flies ("Our Summer Migrants," p. 192), and occasionally Swifts (*Field*, June 3, 1899). Izaak Walton alludes to the pastime of angling from lofty towers for Swallows in Italy, and Washington Irving, in "Tales of the Alhambra," has a similar reference to Spain.

Why unlucky to kill a Swallow? Probably a pagan relique. Ælian states that these birds were sacred to the Penates, or household gods of the ancients, and so were protected. They were honoured as the *nuncios* of the Spring.

As to tame Swallows, and the rearing of young ones by hand, feeding on raw meat and egg, and crushed bees, see *Field*, Feb. 18 and Oct. 21, 1893, and Jan. 26, 1895. See also *Zool.*, 1887, pp. 347 and 372.

For the folklore concerning the Swallow's herb

(*Chelidonium*) and Swallow's stone said to be found in the nest, see a chapter in my "Essays on Natural History," 1880, pp. 276-284.

Swallows are infested by at least three genera of parasitic dipterous insects—*Ornithomyia*, *Stenopteryx*, and *Oxypteron*. Figures of these flies are given in Walker's "Insecta Britannica, Diptera," vol. ii. tab. xx.

MARTIN. *Hirundo urbica*, Linnæus. Pl. 17, figs. 5, 5a.
Length, 5·25 in.; wing, 4·25 in.; tarsus, 0·4 in.

A summer migrant, arriving in April, and usually departing some weeks before the Swallow, which lingers here until October, and often until November. The difference in the mode of nidification with the two species should be too well known to need description here. Suffice it to state that it is the House Martin which builds under the eaves, and is often dispossessed by the Sparrow. Where House Sparrows are destroyed, House Martins increase. This was particularly observed by Colonel Russell at Stubbers, near Romford; see also R. J. Howard in Mitchell's "Birds of Lancashire," 2nd edit.

Before human habitations were constructed of stone-masonry, the Swallows built their nests in caves, and the Martins on the face of cliffs; in several localities that could be mentioned they still continue to do so. See *Zool.*, 1882, p. 437; 1883, p. 34; 1884, p. 470; 1887, p. 373; and 1894, p. 400.



1. Richard's Pipit. 2. Tawny Pipit. 3. 4. Rock Pipit, summer & winter. 5. 5a. Meadow Pipit. 6. 6a. Tree Pipit.
 7. 8. 8a. White Wagtail, old, young, foot. 9. 10. 10a. Yellow Wagtail, summer, winter & foot. 11. 12. Grey Wagtail, old & young.

SAND MARTIN. *Cotile riparia* (Linnaeus). Pl. 17, fig. 6. Length, 4.75 in.; wing, 4 in.; tarsus, 0.4 in.

A summer migrant, generally making its appearance in spring somewhat earlier than any other Swallows, and departing earlier in autumn. Breeds in colonies in sandpits and railway cuttings, where the soil admits easily of excavation. As exceptional nesting sites may be mentioned holes in walls (*Field*, July 24, 1875; *Zool.*, 1862, p. 7844, 1870, p. 2344, and 1877, p. 450), sawdust heaps (*Zool.*, 1876, p. 5108), and a mound at the back of rifle-butts (*Zool.*, 1888, p. 279). For some remarks on the treatment of Sand Martins in captivity, see Butler, *Zool.*, 1887, p. 347.

ORDER III. PICARIÆ¹

Fam. CYPSELIDÆ.

SWIFT. *Cypselus apus* (Linnaeus). Pl. 17, figs. 7, 7a. Length, 7 in.; wing, 7 in.; tarsus, 0.6 in.

It is with some misgiving that, in deference to the opinions of others, I adopt the modern location of the Swifts in the order *Picariæ*, removing them from the *Passeres*, in which order they have been so long associated with the Swallows. Prof. Garrod more than twenty years ago (*Zool.*, 1877, p. 217) pointed out in what respect anatomically Swifts

¹ See Newton's "Dictionary of Birds," *s.v.* *Picariæ*.

differ from Swallows and agree with Humming-birds, and in regard to their "feather tracts" quoted Nitzsch's "Pterylography" in support of his views. Dr. Shufeldt, however, whose opinion as a well-known authority on avine anatomy carries weight, has shown that, although there are undoubtedly points of resemblance between Swifts and Humming-birds, in all the most important osteological characters the former are more nearly related to the Swallows (*Journ. Linn. Soc. Zool.*, xx. 1889). So that the old view, after all, was not incorrect, although the classification since objected to was based upon external characters, and upon similarity of flight, habits, food, nidification, and general mode of life. The late Prof. W. K. Parker, than whom no one was better qualified to express an opinion on such a subject, published an important paper on the systematic position of the Swifts (*Zool.*, 1889, pp. 91-95), in which he characterised Dr. Sclater's expression that the Swifts have no relationship whatever to the Swallows (*Proc. Zool. Soc.*, 1865, p. 593) as "too emphatic to be true." The Swifts, says Prof. Parker, lie between two groups of birds that differ in the most marvellous manner—the *Passeres* and the *Picariæ*, and certainly lie on the Passerine border of the *Picariæ*. He adds, "I agree with my friend Dr. Shufeldt that the Swallow and Swift are near akin." Mr. F. A. Lucas of Washington has shown (*The Auk*, vol. vi. pp. 8-13) that the wing in the *Cypselidæ* is extremely variable; in some it is modified as in the Humming-birds, in

others it comes much nearer to that of the true Swallows (*Hirundinidæ*). This also is confirmed by Prof. Parker. In his monograph upon the Humming-birds (Rep. U. S. Nat. Mus., 1890) Mr. Robert Ridgway (in the words of Dr. Shufeldt when reviewing it in the *American Naturalist*, Oct. 1892) "still adheres to that now well-nigh exploded notion that the Humming-birds are more or less closely related to the Swifts. He states (p. 290) that 'except in the shape of the bill and structure of the bones of the face, the Humming-birds and Swifts present no definite differences of osteological structure.'" "This statement," says Dr. Shufeldt, "is not only not true, but as wide of the mark as it can be. . . . As a matter of fact, when we come to compare the skeleton of a typical Swift with that of a typical Humming-bird, we find the most radical differences existing in nearly every part. As Huxley and other capable anatomists have long ago shown, the skull and associate skeletal parts of a Swift depart not very markedly from the corresponding structures in a Swallow." Having regard to these opinions, I have adopted the view of Prof. Parker, and follow the systematic arrangement of Prof. Newton by placing the Swallows at the end of the *Passeres* and the Swifts at the head of the *Picariæ*. As to the employment of the generic name *Cypselus*, see *The Ibis*, 1897, p. 290.

The Common Swift is a well-known summer visitor to the British Islands, generally distributed—though of irregular appearance in the north of

Scotland and the west of Ireland—arriving usually in the first week of May and departing in August, sometimes in the first week of September. In 1896, one was seen at Worthing, Sept. 25; others at Caistor, Lincolnshire, so late as Sept. 26 and Oct. 25 (*Field*, Oct. 31, 1896). The Swift does not travel quite so far north as either the Chimney Swallow or the Martin; but Wolley saw it on the Faroë Islands, and observed it in summer hawking over the fells at Muonioniska, Lapland.

Swifts go a long way south for the winter, travelling in large flocks (see *Nature*, Aug. 30, 1900). Livingstone in his "Researches in South Africa," p. 124, says, "very large flocks of Swifts were observed flying over the plains north of Kuruman (Bechuana-land): I counted a stream of them which must have numbered upwards of 4000." Andersson also ("Okavango River," p. 137) saw immense flocks in Damaraland towards the end of November. From that time until the month of May they are extremely abundant about Cape Town (E. L. Layard, "Birds of South Africa," p. 50). Like Swallows, they annually revisit their old haunts, as has been proved by marking several birds and restoring them to liberty (Jenner, *Phil. Trans.*, 1824, p. 16.)

See my article on Swallows and Swifts, *Field*, April 14, 1883.

They have been occasionally observed to take possession of Martins' nests (*Zool.*, 1887, pp. 348, 391, 428), but, as a rule, creep up under the eaves of cottages and churches, where they make a loosely

constructed nest of straws and feathers, in which they lay generally two, rarely three, pure white eggs. A white Swift is recorded, *Field*, Sept. 1, 1900.

Fam. CAPRIMULGIDÆ.

NIGHTJAR. *Caprimulgus europæus*, Linnæus. Pl. 17, figs. 8, 8a. Length, 10 in.; wing, 7·25 in.; tars., 0·75.

A summer migrant, generally dispersed throughout the British Islands to the north of Caithness, and extending even to the inner group of the Hebrides. It is not uncommon in Islay, Iona, and Mull, and is generally distributed in Skye, in all of which islands the eggs have been found. Very local in Ireland.

The most westerly point in England at which the Nightjar has been found breeding is the moor below Carn Galva, near Penzance, where, in July 1880, Mr. E. D. Marquand discovered the eggs, from which the parent bird was disturbed (*Trans. Penzance Nat. Hist. Soc.*, n.s., vol. i. p. 283).

The Nightjar is said to move its eggs and transport them in its large mouth if disturbed (*Zool.*, 1884, p. 89), also to transport its young in the same way (*Trans. Norf. Nat. Soc.*, v. p. 76, 1890). In the article last quoted, Mr. J. H. Gurney states that incubation lasts nineteen days, and that the young are not fed exclusively on insects; the stomach of a nestling opened for examination contained vegetable fibre and seeds.

The name "Goatsucker," applied by some writers to this bird, is of course a misnomer, and has been bestowed from inaccurate observation of its habits.

When seen to dash down about the legs of cattle, its object is not to get milk from the udders, but to catch the moths which are disturbed from the grass by the cows and goats as they graze. The names "Fern Owl" and "Churn Owl"—employed by Gilbert White—are far more appropriate in allusion to its haunts and its remarkable notes, which in some parts of the country have earned for it the names of "Eve-jar" and "Eve-churr."

Fam. CUCULIDÆ.

CUCKOO. *Cuculus canorus*, Linnæus. Pl. 17, figs. 1, 2, 2a. Length, 14 in.; wing, 8·5 in.; tarsus, 0·8 in.

A summer migrant, generally distributed throughout England, Ireland, and Scotland, extending even to the Outer Hebrides.

There is no well-authenticated case on record of the Cuckoo having been heard or seen in this country before the 6th of April. The average date of its appearance for the whole of England and Scotland may be given as April 23, and for the south of England April 15. The late Mr. Cordeaux, writing from Lincolnshire on the 15th April 1899, stated that, on looking through his notes of the previous forty years, he found the Cuckoo seldom recorded before the fourth week in April, that is, after the 21st. The earliest heard was on April 8.

As to hatching its own egg, see Adolf Müller, and criticism by Walter, *Zool.*, 1889, p. 214 (translation). Instances of Cuckoos watching over their



1. 2. Bullfinch, ♂ & juv. 3. 4. Bullfinch, ♂. ♀. 5. 6. Parrot Crossbill, ♂. ♀. 7. 8. 9. Crossbill, ♂. ♀. juv.
10. 10a. Skylark. 11. Woodlark. 12. Crested Lark. 13. Shore Lark.

young have been occasionally reported (see J. E. Gray, *Analyst*, 1839, p. 67; Briggs, *Zool.*, 1849, p. 2603; *Field*, June 24, 1876; Feb. 17, 1877; July 31, 1897; and May 28, 1898, the last being a particularly interesting case). For an instance of a Cuckoo laying in captivity, see *Field*, May 20, 1893. As to its sucking the eggs of other birds, H. L. Wilson, *Field*, Jan. 28, 1882; *Zool.*, 1897, p. 515; Gurney, *Trans. Norf. Nat. Soc.*, vi. p. 373; and turning out young birds from nest, "Our Summer Migrants," 1875, and Hancock, *Zool.*, 1886, p. 203. For lists of birds in whose nests the egg of the Cuckoo has been found, see "Our Summer Migrants," 1875, p. 222; Bidwell, *Trans. Norf. Nat. Soc.*, iii. p. 526; Bladen, *Trans. North Stafford. Nat. Soc.*, 1896; in nest of Swallow, *Zool.*, 1894, p. 340. Blue eggs of Cuckoo, *Zool.*, 1880, pp. 361, 400. As to variation of plumage, a white Cuckoo obtained in Norfolk is described, *Zool.*, 1896, p. 174; and the hepatic plumage of the Cuckoo is discussed, *Zool.*, 1895, pp. 257-263. An excellent article on the "Economy of the Cuckoo," by J. H. Gurney, is printed in the *Trans. Norfolk Nat. Soc.*, vol. vi. pp. 365-384, with illustrations.

It has been stated that only the male bird cries "cuckoo" (Newton, "Dict. Birds," p. 119); but Sterland asserts that two were shot in the act of calling "cuckoo," which proved to be hen birds ("Birds of Sherwood Forest," p. 157).

Cuckoos have been successfully kept in confinement during the winter. See *Field*, Feb. 7, 1863;

Aug. 29, 1868; Dec. 21, 1895; and Jan. 11, 1896; where information is given concerning the food and treatment adopted.

Fam. UPUPIDÆ.

HOOPOE. *Upupa epops*, Linnæus. Pl. 14, figs. 8, 8a.
Length, 12 in.; bill, 2·25 in.; wing, 5·75 in.

An irregular spring and autumn migrant, but on several occasions has been observed in winter.

Charlton in his "Onomasticon Zoicon" (1668) gives a life-size engraving (p. 92) of a Hoopoe killed near London in the winter of 1666-7, and Dr. Charles Smith in his "Ancient and Present State of Waterford," 2nd edit., 1774, records another which was shot on the ruins of the old church of Stradbally during the great frost of 1739. Hunt received specimens shot in Norfolk in November and December; and Graves records one killed at Musselburgh in February (*Nat. Journ.*, i. p. 22). Others have been obtained at Scilly, in January (Blyth, *Mag. Nat. Hist.*, ii. p. 595); at Thetford, in December (*Zool.*, 1847, p. 1693); near Oxford, February 1838 (Matthews); and at Hartfield, Sussex, Dec. 14, 1897. Mr. W. H. St. Quintin reported (*Field*, Jan. 25, 1896) having watched on Jan. 11 the movements of a Hoopoe which had been seen for a week or more on an isolated farm at some distance from Rillington, Yorks. It is regarded as a straggler to Scotland (Gray, "Birds of the West of Scotland," p. 198). Two were shot in Dumfries-

shire in the winter of 1870-71, as I was informed by Sir William Jardine.

During the spring migration Hoopoes are sometimes met with at sea. On the 21st April 1853 one alighted on a mackerel-boat near the Eddystone Lighthouse, and on April 15, 1854, another flew into the saloon of a steamer in mid-channel, both birds being taken alive, apparently much exhausted. A third was captured by the lighthouse keeper at the Isle of May on the 30th April 1898. In Ireland the Hoopoe has appeared in all quarters of the island, but chiefly in the south. Montagu states that a pair began a nest in Hampshire; and Latham has referred to a young Hoopoe which was shot in this country in the month of June. Jesse has recorded that a pair bred close to the house at Park End, Chichester ("Gleanings in Nat. Hist.," 3rd series, p. 148). In Dorsetshire, according to Mr. Turner, of Sherborne, the nest has been taken on three or four occasions by school-boys from pollard willows on the river banks at Lenthay. These birds were known to the boys as "hoops."

Dr. Muffett, who died in 1590, wrote: "Houpes (*Upupæ*) were not thought by Dr. Turner to be found in England, yet I saw Mr. Serjeant (*sic*) Goodrons kill one of them in Charingdon Park, when he did very skilfully and happily cure my Lord of Pembroke at Ivychurch" ("Health's Improvement," 1655, p. 101).

See my article on "Tame Hoopoes" in *The Field*,

Jan. 20, 1900; and another by Dr. A. Günther, "The Hoopoe in Captivity," *Field*, Jan. 27, 1900.

Fam. CORACIIDÆ.

ROLLER. *Coracias garrula*, Linnæus. Pl. 14, figs. 1, 1a.
Length, 12 in.; bill, 1 in.; wing, 8 in.; tarsus, 0·9 in.

An irregular summer migrant, rare in Scotland, and occasionally observed in Ireland, chiefly in autumn (*Zool.*, 1891, p. 430; 1892, p. 33). Has occurred several times in Orkney.

Dr. John Hill in his "History of Animals," 1752 (p. 369), mentions a Roller seen by him in Charlton Forest, Sussex, in which county several others have been from time to time obtained. Markwick made a coloured drawing of one which was shot near Crowhurst in Sept. 1790. According to W. E. Clarke ten or twelve instances are known of the occurrence of this bird in Yorkshire. One in the collection of Mr. W. Borrer was shot at Bircham, Norfolk, in September 1847. Two in Sir J. Gooch's collection, killed at Benacre, Suffolk, are noticed by Jesse ("Gleanings," 3rd ser., p. 98); and a male was shot at Raydon, near Ipswich, on June 14, 1876 (*Field*, July 15, 1876).

This bird feeds on insects and their larvæ, small molluscs, fruit, such as grapes and figs in summer, and berries in autumn.

A specimen of the Indian Roller (*C. indicus*) is said to have been taken at Louth, Lincolnshire, Oct. 8, 1883; *cf.* Cordeaux, *Ibis*, Jan. 1891, p. 147.

Fam. MEROPIDÆ.

BEE-EATER. *Merops apiaster*, Linnæus. Length, 10 in.; bill, 1·5 in.; wing, 5·75 in.; tail, 4·5 in.; tarsus, 0·4 in.

An irregular summer migrant to England. As many as twenty have been seen together at one time in Norfolk (Stevenson, "Birds of Norfolk," i. p. 313), and a dozen were procured in one day in May 1828 at Helston, Cornwall (Rodd, "Birds of Cornwall," p. 68). Dr. Moore says the Helston specimens were *eleven*, not twelve (*Trans. Plym. Inst.*, 1830, p. 315); so does Couch (p. 19); but the exact number is not material. Four others were shot at Madron (Couch, p. 19). Mr. Mansel Pleydell mentions the occurrence of two in his county ("Birds of Dorset," p. 60); and a great many are stated to have been met with at various times in Devonshire (D'Urban and Mathew, p. 119). In Somerset a small flock appeared at Stapleton, on the banks of the Frome, in May 1869, and three were shot. Amongst the more recent occurrences of this species in England, *i.e.* since the publication of the first edition of this Handbook, the following may be mentioned:—

One, Ingoldsby, near Bowes, July 1879 (*Zool.*, 1882, p. 149).

One, Tetney Lock, near Grimsby, August 16, 1880 (*Field*, Sept. 11, 1880).

Seven seen, three shot, Whitegate, Co. Cork, April 1888. Two in Dublin Museum.

One, Balbriggan, Co. Dublin, May 2, 1889. In

the collection of Mr. G. A. Templer (*Zool.*, 1889, p. 229).

One, out of six, seen at Delgany, Co. Wicklow, Nov. 2, 1892 (*Zool.*, 1892, p. 428).

Three, near Milfordhaven, Pembrokeshire, May 13, 1896, *fide* Captain F. Hughes, Government House, Devonport, May 16, 1896.

One, seen at Haggerston Castle, Beal, Northumberland, April 29, 1897 (C. J. Leyland, *Field*, May 8, 1897).

Two seen and one shot in Caithness, May 12, 1897 (L. Dunbar, *Ann. Scot. Nat. Hist.*, 1897, and *Ibis*, 1898, p. 157).

Fam. ALCEDINIDÆ.

KINGFISHER. *Alcedo ispida*, Linnæus. Pl. 14, figs. 2, 2a. Length, 7·5 in.; bill, 1·5 in.; wing, 3 in.

This is Tennyson's "sea-blue bird of March" (*Zool.*, 1884, pp. 117, 197).

Resident and generally distributed, migrating to the coast at the approach of winter, when the inland streams and marsh dykes become frozen, and they are thus prevented from fishing. I have known a Kingfisher to be caught in a lobster-pot into which, when exposed at low tide, it had dived after a small struggling fish.

Kingfishers scoop out for themselves the holes in which they nest, and lay their eggs on the bare soil, not on fishbones as generally supposed; these are accumulated by degrees and by accident, not

by design (Scobie, *Proc. Nat. Hist. Soc. Glasgow*, n.s., vol. iii. p. 253, and Laver, *Essex Nat.*, vol. iii. p. 93). Several instances have been reported from time to time of Kingfishers perching on an angler's rod held in hand while fishing.

Fam. PICIDÆ.

GREEN WOODPECKER. *Picus viridis*, Linnæus. Pl. 16, figs. 3, 4, 5. Length, 12·5 in.; bill, 1·75 in.; wing, 6·5 in.; tarsus, 1·25 in.

Resident in England, but rarely met with north of the Solway or Tweed. It was formerly so rare in Cornwall that Mr. Rodd had only once or twice met with it in thirty years' experience (*Zool.*, 1876, p. 4796). In 1882, however, it had become much less rare, and was stated to be breeding in that county ("Birds of Cornwall," 1880, p. 65).

There is a specimen in the Dunrobin Museum from Bonar, Sutherland. In 1876, according to the late W. Reid, of Wick, the Green Woodpecker had not been met with in Caithness. It is a rare visitant to Orkney, where one or two specimens have been procured.

In Ireland it has been obtained only twice, viz., at Granard, Co. Longford (Thompson, *Nat. Hist. Ireland*, App., p. 441), and at Sallymount, Co. Kildare (Watters, "Birds of Ireland," p. 97).

The European *Picus canus* is figured (Pl. 16, figs. 6, 7) for comparison with *P. viridis*, and with the Spanish form *P. sharpii*, which has a grey face.

GREATER SPOTTED WOODPECKER. *Dendrocopus major* (Linnæus). Pl. 16, figs. 8, 9, 10. Length, 9·5 in.; bill, 1 in.; wing, 5·5 in.; tarsus, 1 in.

Resident in England, and in a few instances has been noticed in Ireland. In the autumn of 1889 six were shot in Ulster, two in Leinster, one in Munster; and in Jan. 1890, one in Co. Kerry. It is a well-known winter visitant throughout Scotland, and specimens have been obtained in almost every county. "It has been known to breed in limited numbers in Banffshire, Aberdeenshire, and a portion of Inverness-shire" (R. Gray). Numerous in Orkney and Shetland in the autumn of 1861 (Saxby, *Zool.*, 1862, p. 7932); and in Caithness (W. Reid, of Wick, *Land and Water*, Dec. 16, 1876), and has been met with in Skye (*Zool.*, 1889, p. 269).

In 1873 a curious variety of this Woodpecker was shot in the New Forest by James Gulliver, a woodman of Brockenhurst. With the exception of the red feathers on the head and under the tail, the bird was *perfectly white* (*Zool.*, 1876, p. 4797). As to habits in captivity, see *Zool.*, 1883, p. 473.

LESSER SPOTTED WOODPECKER, *Dendrocopus minor* (Linnæus). Pl. 16, figs. 12, 13, 13a. Length, 5·75 in.; bill, 0·75 in.; wing, 3·5 in.; tarsus, 0·6 in.

Resident in England. In regard to Scotland, it is included in Don's "Fauna of Forfarshire" and in Pennant's "Caledonian Zoology," and is stated to have been observed in Caithness in a garden near

Wick; but R. Gray states that he has never been able to examine a specimen killed in any part of Scotland ("Birds West Scotland," p. 191).

This bird is very rare in Ireland, though it has been met with there more often than the Green Woodpecker. Glennon of Dublin has preserved six or seven at various times, sent to him from different counties.

WRYNECK. *Jynx torquilla*, Linnæus.¹ Pl. 17, figs. 3, 3a. Length, 6·5 in.; bill, 0·6 in.; wing, 3·25 in.

A summer migrant to England, rarely seen in Scotland north of the Forth. On two occasions, however, it has been met with in Orkney (*Ann. Scot. Nat. Hist.*, 1897, p. 43), and on the 30th of April 1898, one was captured alive on the Island of Foula, Shetland. It died about an hour afterwards, and was sent to the Museum of Science and Art, Edinburgh. It was not observed in Ireland until 1877, but since then it has been met with on at least five occasions, viz., in Waterford, near Dunmore, Oct. 5, 1877; Rathlin Island, Donegal, Oct. 1878; Arran Island, north lighthouse, Oct. 6, 1886; Ashford, Co. Wicklow, May 31, 1895; and Rockabill Lighthouse, five miles off Dublin, Sept. 8, 1896 (*Irish Naturalist*, 1898, p. 16).

The Wryneck has occasionally been seen in this

¹ In departing from the customary mode of spelling the above generic term, it may be desirable to indicate its derivation—namely,

* *ἰνυξ*, *ινυξος*, so called from its shrill cry, th. *ἰνύξω*.

country in the winter, *e.g.* one was both heard and seen in Norfolk on the 1st of January 1884 (Upcher, *Zool.*, 1884, p. 74); another was seen and heard near Cambridge on Nov. 25, 1895 (J. L. Bonhote, *Field*, Dec. 7, 1895).

Known in many parts of the country as the Cuckoo's-mate from its habit of appearing about the same time as the Cuckoo. Its call, composed of five dissyllabic notes, is not unlike that of the Kestrel.

Although usually selecting a hole in a tree for nidification, the Wryneck has been known to occupy a Sand-martin's burrow in the side of a sandpit in Oxfordshire (*Zool.*, 1885, p. 27), and another in a brick-earth cutting in Kent (*Zool.*, 1887, p. 299).

Order IV. COLUMBÆ

Fam. C O L U M B I D Æ.

RING DOVE or WOOD PIGEON. *Columba palumbus*,
Linnæus. Pl. 18, fig. 6. Length, 17 in.; wing, 10 in.;
tarsus, 1 in.

Resident and generally distributed, migrating to the south at the approach of winter, when large flocks arrive here from the Continent, particularly in November. The home-bred birds, which begin nesting early in April, and rear several successive broods before September, quit their summer quarters about the end of the latter month, and go south-

ward, always flying head to wind. Mr. Abel Chapman, in his "Bird-life of the Borders," gives an excellent account of the Wood Pigeon from personal observation in the north of England, where this bird is known as the Cushat. He states there is no doubt that at some seasons, and under certain conditions of weather, large flocks of Wood Pigeons cross the North Sea, especially in the month of November; but as no great number are bred in Norway, Sweden, or Denmark, it is probable that many of our visitors come from the Scottish Highlands, the Lothians, or elsewhere, merely shifting their quarters in search of food.

Although the usual number of eggs laid by pigeons is two, both the Wood Pigeon and the Stockdove occasionally lay three (*Zool.*, 1876, p. 4875, and *Field*, May 28, 1898). The two species have been known to inter-breed, and more rarely the Wood Pigeon has paired with a house-pigeon (*Field*, July 22, 1876; *Zool.*, 1894, p. 23). Several cases are recorded of the Wood Pigeon breeding in captivity (*Field*, Jan. 26, 1895), and occasionally in a building (*Field*, Feb. 3, 1900). In July 1875 a pair nested in the dome of the Infirmary at Elgin, although there are large woods of Scotch fir in the neighbourhood. Sometimes a nest has been found on the ground (*Zool.*, 1895, pp. 232, 275). I have noted the following contents of crops in Wood Pigeons shot in different months, chiefly between Sept. 1 and Feb. 1 :—(1) 26 acorns and nearly 100 ivy-berries; (2) 33 acorns and 44 beech-mast;

(3) 65 beans; (4) 76 beans; (5) 87 beans; (6) 75 acorns; (7) 139 beech-nuts, a few grains of wheat, and a small white slug, *Limax agrestis*; (8) 46 horse-beans, as many field-pease, and a few elm-buds; (9) 1840 green seed-pods with calyx attached of *Veronica Buxbaumii*; (10) 13 shells of *Helix caperata*; (11) Several shot on March 9 were crammed with leaves of Lesser Celandine; (12) The crop of one shot by the late Canon Atkinson of Danby in Cleveland burst on falling and displayed half a pint of holly-berries ("Forty Years in a Moorland Parish," p. 345).

Wood Pigeons sometimes cast up "pellets" like owls and other birds of prey, but probably only after eating certain kinds of food, as is the case with Rooks (*Zool.*, 1887, pp. 193, 235).

In very hot weather Wood Pigeons (as well as house-pigeons) may be seen alighting occasionally on the surface of water to drink, and after a few seconds flying off again (*Field*, June 26 and July 3, 1875). Large numbers of Wood Pigeons are netted on migration in the Pyrenees (*Field*, Dec. 8, 1883; *Zool.*, 1885, p. 185; *Field*, Dec. 17, 1887), and Turtledoves are similarly taken in the Medoc (*Field*, May 20, 1899). Decoys for shooting pigeons (Badminton Library, vol. "Shooting," p. 230). Lord Walsingham's bag of 185 Wood Pigeons (*Field*, Jan. 10, and Feb. 7 and 14, 1891). Albino Wood Pigeons (*Field*, Nov. 3, 10, 17, 24, 1894). Disease in Wood Pigeons (*Field*, Nov. 23 and 30, and Dec. 7, 1895; *Zool.*, 1896, p. 260).

STOCK DOVE. *Columba œnas*, Linnæus. Pl. 18, fig. 7.

Length, 13·5 in.; wing, 8·5 in.; tarsus, 1 in.

A local resident, migrating to the south in winter. In the different county faunas and local lists to which reference has been made, this species has been variously characterised as follows:—Common throughout the year in Norfolk; a permanent resident in Leicestershire; breeds in Cheshire and in Worcestershire; very common in Shropshire; resident in Berks and Bucks; resident in Middlesex, but more numerous in autumn and winter; resident and common in the New Forest; resident in Sussex; rare in Somerset; a winter visitant in Devon; rare in Cornwall; rare winter visitant in the Isle of Wight, where, however, it has twice been found nesting; and twice obtained at Scilly. Until recently it seems to have been unknown in Durham, and farther north it is extremely rare (*Ibis*, 1878, p. 382). In Northumberland, near Hexham, June 1872, April 24, 1873, and May 10, 1873.

The extension northward of the range of this bird during the last ten or a dozen years is noteworthy. This has been particularly remarked by Mr. Chapman in Northumberland ("Bird-life of the Borders," 1889, p. 145), and by Mr. Harvie-Brown (*Ann. Scot. Nat. Hist.*, 1894, p. 3). It has been met with in Perthshire (*Zool.*, 1884, p. 272), in East Lothian, where it nested amongst the crags of Traprain Law (*Zool.*, 1887, p. 235), in Caithness (Harvie-Brown), two or three times in Orkney, and once in Shetland.

In Ireland the Stock Dove is of rare occurrence, but has of late years been observed more frequently. One in the Belfast Museum was shot in Co. Down in 1876, a second was obtained after it had left the nest (*Zool.*, 1877, p. 383). Others have been procured in Antrim (*Zool.* 1889, p. 309) and Wicklow (*Zool.*, 1893, p. 192).

Although commonly found nesting in stocks or pollards, this bird occasionally resorts to sea-cliffs, as in Dorsetshire (*Field*, April 14, 1866) and Yorkshire (*Field*, July 7, 1877); also in rabbit-burrows, as in Norfolk (Stevenson, vol. i. p. 356) and Walney Island (*Zool.*, 1880, p. 244); phenomenally in Magpies' nests (*Zool.*, 1875, p. 4539, 1880, p. 143), and, as I have myself observed, in the wooden spire of a country church (*Field*, March 30, 1867).

Both the Stock Dove and the Wood Pigeon are very common in Scandinavia in summer, but do not winter there (*Field*, May 8, 1897). The former may always be known from the latter by its smaller size and sharper flight, as well as by the absence of white collar so conspicuous in the Ring Dove. The difference in size is shown in their respective weights. An old Stock Dove will weigh from $12\frac{1}{2}$ to $14\frac{1}{2}$ oz.; a Wood Pigeon from 16 oz. to 24 or 25 oz.

ROCK DOVE. *Columba livia*, Temminck. Length, 13·5 in.; wing, 8·5 in.; tarsus, 1 in.

Resident, and in many places plentiful, especially along the coast-line of the west of Scotland, in the

Hebrides or Western Isles, and on the north and west coasts of Ireland.

Although similar in size and weight to the Stock Dove, it may be always distinguished from that species by the white rump (instead of blue), and by the black bars on the wings.

TURTLE DOVE. *Turtur communis*, Selby. Pl. 18, figs 8, 8a. Length, 11 in.; wing, 7 in.; tarsus, .9 in.

A summer migrant to England and Wales, occasionally to Scotland. One was shot near Berwick in the autumn of 1872, as I am informed by Mr. Thomson of Kelso, who saw the bird in the flesh; one near Haddington (Macgill, ii. p. 480); and one near Thurso, Caithness, Nov. 2, 1878 (M'Nicol, *Field*, Nov. 9, 1878). In the Hebrides specimens have been shot in Islay and Skye, but not in the outer islands. Several instances of its occurrence in Shetland have been reported; and it has twice been procured in Orkney (Baikie and Heddle, "Fauna Orcadensis," p. 223). In Ireland it is stated by Thompson to be "an occasional, almost an annual, visitant to the cultivated districts in some parts of the island; but is rare in the west (Warren, *Zool.*, 1882, p. 267). In the summer of 1882 one was shot and another seen in Co. Waterford.

In Oct. 1889 a bird identified by Mr. Seebohm as an immature Asiatic Turtle Dove (*Turtur orientalis*) was shot near Scarborough, and is preserved in the York Museum (*Proc. Zool. Soc.*, 1890, and Backhouse, *Nat.*, 1890, p. 258).

Order V. **PTEROCLIDES**Fam. **PTEROCLIDÆ**.

PINTAILED SAND-GROUSE. *Syrrhaptes paradoxus*
(Pallas). Length, 15 in. ; wing, 10 in. ; weight, 10½ oz.

Although this species has on several occasions and in different years visited the British Islands in considerable numbers, and has even nested in this country (*cf. Ibis*, 1890, p. 207, Pl. 8), it can only be regarded as an occasional and very erratic wanderer from Turkestan and the Kirghis Steppes, and for this reason should perhaps be relegated to Part II. of this "Handbook." It may, however, be mentioned here *en passant*, as the only representative of its Order in the British Avifauna.

Order VI. **GALLINÆ**Fam. **TETRAONIDÆ**.

CAPERCAILLIE. *Tetrao urogallus*, Linnæus. Length,
32 in. ; wing, 15 in. ; tarsus, 2·5 in.

As to the proper mode of spelling the name of this bird, we have it on the authority of the Rev. Dr. Maclauchlan, a well-known Gaelic scholar, that it is derived from the Gaelic *cabhar-coille*, or "bird of the wood," the Snipe being *cabhar-athar*, or "bird of the air" (ether). Dr. Maclauchlan considers, therefore, that *caber-coille* is the orthography



1



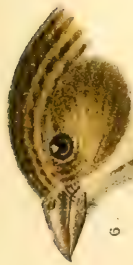
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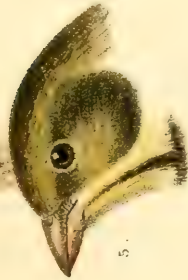
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4



6



5



8



7



9



11 a



3 a



13 a



11



10



13



12

1. Common Bunting. 2. 3. 3a. Yellowhammer, ♂, ♀ and foot. 4. Girl Bunting, ♂. 5. 6. Ortolan, ♂ ♀. 7. S. Reed Bunting, ♂ ♀. 9. Little Bunting, ♂. 10. 11. 11a. Snow Bunting, ♂, ♀ & foot. 12. 13. 13a. Lapland Bunting, ♂, ♀ & foot.

which comes nearest to the original. Mr. Harvie-Brown writes, "Some people assert that to spell it with a *z* is the best Scotch, but there being no *y* nor *z* in Gaelic, and the word being distinctly of Gaelic origin, it is best to adhere in form as closely as possible to that origin." He accordingly adopts the spelling *Capercaillie*, which is here followed.

Originally indigenous to the north of England, Scotland, and Ireland, dwelling in the great pine-woods which have been gradually destroyed, it survived longest in Scotland, where it is said to have become extinct about 1769, in which year Pennant ascertained that it still lingered in Glen Moriston and in the country of the Chisholms, in Inverness ("Tour in Scotland," 5th ed., i. p. 218, and iii. p. 23; "British Zoology," 4th ed., p. 225, pl. xli.). Graves in his "British Ornithology" (1821) assigns a later date than this to its extinction, observing that one was killed near Fort William in 1815. However that may be, the species was reintroduced into Scotland in 1837-38 by Lord Breadalbane and Sir Thomas Fowell Buxton, through the agency of Mr. L. Lloyd, who sent over some of these birds from Sweden. Interesting particulars of this enterprise are given in Lloyd's "Game-birds and Wildfowl of Sweden and Norway," and in Mr. Harvie-Brown's more recently published work, "The Capercaillie in Scotland," 1879, with supplementary remarks in *The Scottish Naturalist*, July 1880. The diary of the gamekeeper, Laurence Banville, who journeyed

to Sweden to fetch the birds, is printed *verbatim* in Blaine's "Rural Sports."

There can be no doubt that in ancient times this bird existed in England in the great pine-woods, and was killed and eaten by the cave-dwellers. Bones have been found at Teesdale, in caves of mountain limestone, and among Roman remains at Settle; moreover, it must have survived in England within historic times, for the Britons had a name for it, *Ceiliog coed*, cock of the wood, and it appears by old grants (*circa* 1343–1361) that land was then held in the county of Durham by the tenure *inter alia* of paying yearly one wood-hen, *gallina sylvatica* (*Zool.*, 1879, p. 468; *Scot. Nat.*, 1880). Lord Ravensworth attempted to reintroduce it into Northumberland at Eslington (*Nat. Hist. Trans. Northumb.*, vol. v. p. 334), and a similar experiment was made by Sir H. Graham at Netherby (Macpherson, "Birds of Cumberland," p. 126).

With regard to Ireland, Ruttie, writing in 1772 ("Nat. Hist. Co. Dublin," i. p. 302), and referring to the cock of the wood described by Pennant, says: "One of these was seen in the county of Leitrim about the year 1710; but they have entirely disappeared by reason of the destruction of our woods." According to Pennant, however, a few were to be found about Thomastown in Tipperary about 1760; so that the ancient race seems to have become extinct in Ireland and Scotland about the same time.

Hybrids between Capercaillie and Blackgame are

mentioned by Pennant (*ut supra*); *Field*, March 15, 1863; *Zool.*, 1878, p. 349; and *Ann. Scot. Nat. Hist.*, 1897, p. 45; and between Capercaillie and Pheasant, *Scot. Nat.*, 1891, p. 38. Examples of these are figured by Mr. Millais in his "Game-birds."

As to the food of this bird, the young when following the hen, which scrapes for them like other gallinaceous birds, feed largely on worms, insects, and their larvæ, and ants' eggs; later they live much on blaeberrries, and visit the oat-fields. The crop of one shot in Perthshire, during the first week of November, contained a handful of oak-leaves and 168 acorns; others contained shoots of the Scotch fir, heather tops, and oats. A young cock Capercaillie in his first year will weigh from 4 lbs. (the weight of an old Blackcock) to 6 lbs. or 7 lbs.; when three years old and upwards, from 10 lbs to 12 lbs.

As to the position of the Capercaillie under English game laws, see my remarks *Field*, Nov. 25, 1882, and J. G. Millais, *op. cit.* 1894, p. 27.

BLACK GROUSE. *Tetrao tetrix*, Linnæus. Pl. 18, figs. 4, 5, 5a. Length, ♂ 23 in.; 18 in. to fork of tail; ♀ 17 in.; wing, ♂ 10·5 in., ♀ 9 in.; tarsus, ♂ 2 in., ♀ 1·6 in.

Resident in the greater part of Scotland and in many parts of England, where larch and birch woods, wide tracts of heath, and moist, rushy ground afford sufficient shelter and natural food.

Northumberland.—At Alnwick, Mouncer Moors, Kielder, Morpeth, Riddlehamhope Moor, near Blanchland, and within six miles of Newcastle.

Cumberland. — Bewcastle, Naworth, Netherby, and Crossthwaite.

Westmorland.—About Shap, Raegill, and Lowther Woods, and Julian Bower.

Durham.—On the Yorkshire border near Stokesley and Lartington, Upper Teesdale, and Weardale.

Yorkshire.—Sheffield, Huddersfield, Wensleydale, Nidderdale, and Swaledale. Introduced at Lartington, and forty years ago at Birk Brow, near Guisborough, Tryup Head, and Levertton Moor (*Field*, Feb. 20, 1897).

Lancashire.—Winster, Cartmell, and Furness Fells (*Zool.*, 1850, p. 2968). Unsuccessfully introduced at Whitewell in Bowland in 1864, Easington Fell, near Blackburn, Nov. 18, 1895.

Cheshire.—Formerly (1864) in Delamere Forest, now cleared. At Boughton in 1892.

Derbyshire.—In the pine woods round Strines Edge, Glossop, Hayfield, and Castleton in the Peak.

Nottinghamshire.—Sherwood Forest, Inkersal, Newstead, Coleorton Corner, and Ratcher Hill.

Lincolnshire.—Introduced at Frodingham on Trent-side, and Caistor, 1871–72.

Shropshire.—Formerly on Whixall Moss; now on the Clee-hills, Corvedale, Church Stretton, Stiperstones, and Clun Forest.

Staffordshire.—Cannock Chace, Needwood (formerly), Chartley Moss, Cheadle, Leek, and the Weaver Hills.

Leicestershire.—Formerly in Charnwood Forest, and Sharpley, until 1850.

Rutlandshire.—One shot in Burley Wood, Jan. 1851.

Northamptonshire.—Near Cranford and Grafton Park straying from Sherwood Forest (*Zool.*, 1851, p. 3278).

Norfolk.—Supposed to be indigenous in the Downham Market district; introduced with more or less success in other parts of the county, as near Thetford, where upwards of 200 were turned out by Mr. Dalziel Mackenzie (*Field*, Nov. 2, 1895).

Suffolk.—Introduced at Elveden, and Blackheath, Friston, near Aldeburgh, 1850.

Warwickshire.—Sutton Coldfield, Oct. 1888.

Worcestershire.—Wyre Forest, Bewdley, Clee-hills, and the wooded banks of the Teme near Eastham.

Herefordshire.—Cusop Hill and the Black Mountains, Bircher Common, Shobdon, Craswell, and Stoke Edith.

Oxfordshire.—Forest Hill, 1836; Tackley, near Woodstock, 1880 (Aplin, "Birds of Oxfordshire").

Berkshire.—Introduced at Windsor and Ascot Heath. Several shot there in Oct. 1867 (*Field*, Oct. 5, 1867).

Buckinghamshire.—Hyde Heath, near Chesham, 1852 (Clark Kennedy, "Birds of Bucks").

Surrey.—Leith Hill, 1871-72-76; Camberley, 1887; and Farnham, 1888; Peperharrow, 1890; on the Pudmoors near Godalming, Frensham Common, 1891-96; and Hindhead, 1899.

Sussex.—Formerly in St. Leonard's Forest till 1850, near Crawley, and Lewes, Oct. 1851; Ashdown Forest till 1862; Blackdown, 1870, 1881, and 1890.

Hants.—New Forest, Holt, and Wolmer Forest (1878), and Hurstbourne Priors, introduced by the Earl of Portsmouth.

Wilts.—Winterslow Woods and Ellesbourne formerly; Redholm, Vale of Pewsey, and Compton Bassett; occasional stragglers from Hants and Somerset.

Dorsetshire.—On the heaths which are preserved between Alderholt and Knighton. Bloxworth Heath, Chamberlayne's Heath, and Hyde Heath (Mansel Pleydell, "Birds of Dorset," p. 68).

Somersetshire.—Quantock and Brendon Hills, the northern skirts of the Mendips, Winsford, and Oare.

Devonshire.—On Dartmoor to the south and west; Haldon and Blackdown Hills; and on the borders of Exmoor.

Cornwall.—The Bodmin Moors, Kilmar and Dosmare Pool districts.

In Wales the Black Grouse has been introduced in Carnarvonshire at Vaynol, in Merionethshire at Bala, in Montgomeryshire north of Lake Vyrnwy, and in Pembrokeshire at Trecwm. In Cardigan-shire it is probably now extinct (*Zool.*, 1895, p. 183). In Glamorganshire, where once common, now extinct; in Breconshire fairly plentiful near Tre-castle, on the properties of the Marquis of Camden, Lord Tredegar, Lord Glenusk, and Mr. Williams Vaughan. The Welsh call it *Ceiliog du*, black cock, and *Ceiliog-y-mynydd*, cock of the hill.

In Ireland the Black Grouse is not found naturally, and it is still doubtful whether it ever existed there except as an introduced species. Pocock in his "Tour in Ireland," 1752, stated that in Co. Antrim some had been brought over by Lord Antrim from Scotland. Pennant in 1812 (*Brit. Zool.*, i. p. 353) asserted that some had been shot in Co. Sligo, where the species had been formerly introduced from Scotland. A few were turned out at Claggan by Lord O'Neill in 1829; at Glenarm by Lord Antrim in 1839, and others about the same time at Tollymore, Co. Down, and Courtown, Co. Dublin. Col. Cooper of Markree Castle, Co. Sligo, made several attempts to establish Black-game in his neighbourhood by importing birds from Norway, but they eventually disappeared.

In *The Irish Naturalist*, Feb. 1899, Mr. G. H. Barrett-Hamilton has summarised the results of these and other experiments, adding that in the

Dublin Museum Mr. Lydekker recognised some bones of the Black Grouse from Ballynamintra Cave, Co. Waterford, from which it was inferred that this bird was once indigenous in Ireland. But Mr. Ussher ("Birds of Ireland," 1900, p. 231), states that the bones referred to resemble those of a small domestic fowl far more closely than those of a Black Grouse.

Hybrids between Blackcock and Pheasant have been frequently obtained and recorded.

In *The Zoologist* for Feb. 1885, I have described and figured a curious variety of the Blackcock spotted with white. Most writers agree in describing the Blackcock as having white under tail coverts, but they omit to state that these coverts are tipped with black markings, which vary in size and intensity of colour with age, the older birds having darker tips and more of them.

The weight of an old Blackcock is about $4\frac{1}{2}$ lbs.; a young male from $2\frac{1}{2}$ to 3 lbs.; a grey hen 2 to $2\frac{1}{4}$ lbs. Grey hens breed when a year old. For information on rearing Black-game see *The Field*, Feb. 27, 1875; Aug. 15, 1891; Nov. 13 and 20, 1897; Jan. 14 and Feb. 4, 1899; incubation lasts twenty-eight days.

As to food, Black-game in spring feed much on the cotton grass, *Eriophorum vaginatum*, and are fond of the buds of the bog myrtle; in summer, heather, pine leaves and shoots; in autumn, acorns, oats, seeds of rush, and berries of *Vaccinium Myrtillus*; in winter the catkins of the alder, and berries of the rowan tree.

RED GROUSE. *Lagopus scoticus* (Latham). Length, 14·5 in.; wing, 8 in.; tarsus, 1·5 in.

Resident in Scotland, the north and north-west of England, Wales, and Ireland: this is regarded as the only species of bird peculiar to the British Islands, but it has been introduced into Sweden, Denmark, Belgium, and North Germany. It breeds in Derbyshire, Lancashire, Yorkshire, and in every county north of lat. 54°, reaching the Outer Hebrides and Orkneys. On the introduction of Grouse into Shetland, see my notes in *The Field*, May 4, 1889. Attempts to naturalise the Red Grouse on Bagshot Heath (*Field*, Jan. 14, 21, 1871), on Dartmoor and Exmoor, 1820–25, have failed (see *Zool.*, 1891, p. 235), nor have similar experiments made on the heath lands of Suffolk and Norfolk at Brandon, 1854; Elveden, 1864–65; and Sandringham, 1878, been more successful. See Manley, "Notes on Game," 1880, and Babington, "Birds of Suffolk," 1884–86, p. 107 footnote.

As to the distribution of the Red Grouse in the West of England and South Wales, it is found on the Black Mountains in Herefordshire, the hills of Monmouthshire, and the moors of Radnor, Brecon, Carmarthen, and Pembroke; also in Glamorganshire, on the Glyn Mountains between Dinas and Cymmer. The Welsh name for Grouse is *Grugiar*. Wanderers have been found accidentally in Wiltshire, Somersetshire, and Worcestershire.

As to the partial migration of Grouse, see Harvie-Brown, "Fauna of Moray," ii. p. 153; *Proc. Glasgow N. H. Soc.*, 1879, p. 167; Clarke and Roebuck, "Yorkshire Vertebrata," p. 62; *Zool.*, 1886, p. 107; and 1895, pp. 21, 69, 108. Marked Grouse, *Field*, Sept. 16, 1893; Aug. 21, 1897; Aug. 20, 1898. Grouse swimming, "Fauna of the Outer Hebrides," p. 249; and carrying the young, *Field*, Feb. 2, 1895.

As to variability of plumage, see Manley, "Notes on Game and Game Shooting," 1880, p. 40; Buckley, *Proc. Zool. Soc.*, 1882, pp. 112-116; Grant, *Ann. Scot. Nat. Hist.*, 1894, pp. 129-140; and Slater, *Zool.*, 1895, p. 107. Irish Grouse are lighter in colour than those of Great Britain. See Ussher, "Birds of Ireland," p. 230.

Grouse have been known to breed in confinement (*Field*, Feb. 6, 1863). A tame one lived for six years in captivity at Wilton House, Blackburn, and in 1898 Mr. Assheton Smith showed me a tame covey at Vaynol.

Hybrids between Red and Black Grouse are reported, *Field*, March 15, 1863; Feb. 20, 1875; *Proc. Zool. Soc.*, Nov. 7, 1893; *Field*, Sept. 15, 1894; and Sept. 5, 1896. Figured by Millais, *op. cit.*

A hybrid also between Red Grouse and Ptarmigan has been described (see Newton, *Proc. Zool. Soc.*, 1878, p. 793; Chamberlain, *Zool.*, 1892, p. 44; and Millais, "Gamebirds," figure, p. 181).

With regard to the annual shedding of the claws in the Grouse family, see under Ptarmigan.

The Grouse in Orkney are said to exceed in weight those found in any part of Scotland. Average weight of old Grouse, 20 to 24 oz.; best in Scotland, 28 oz.; Orkney birds up to 30 oz. In England, on the Alston moors, old hens weigh 23 oz., old cocks, 26 oz.; in Upper Swaledale 28 to 30 oz.

The following are some record bags:—On Aug. 30, 1888, Lord Walsingham shot 1070 driven Grouse—535 brace—on Bluberhouse Moor, Yorkshire (*Field*, Sept. 8, 1888); on Aug. 20, 1872, Sir F. Milbank, with five other guns, killed 2070 Grouse, or 1035 brace, on Wemmergill Moors, Yorkshire, and in the same year Mr. Remington Wilson and friends on one day bagged 1313 brace by “driving.”

The subject of Grouse disease is one on which a volume might be written, and cannot here be discussed. The following sources of information may be consulted:—

St. John, “Nat. Hist. and Sport in Moray,” 1863.

Colquhoun, “The Moor and the Loch,” 1868.

Young, “Aspects of the Grouse Disease,” *Proc. Nat. Hist. Soc. Glasgow*, 1868, p. 225.

Gray, “Birds of the West of Scotland,” 1871, p. 233.

Cobbold, “The Grouse Disease,” 8vo, pp. 27, 1873.

Paton, Report on Grouse Disease, *Field*, June 17, 1882.

Harvie-Brown, Remarks on Grouse Disease, *Zool.*, 1882, pp. 401–404.

Macdonald, “Grouse Disease: its Causes and Remedies,” 3rd ed., 1883, p. 190.

Harting, Review of the subject, *Field*, April 28, 1883.

Speedy, “Sport in the Highlands and Lowlands of Scotland,” 1884, pp. 182–201.

Klein, Reports on Grouse Disease, *Field*, July 23, 1887; *Zool.*, 1887, pp. 327-337; *Field*, June 15 and Dec. 28, 1889.

Chapman, Notes on Grouse Disease in "Bird-life of the Borders," 1889, pp. 65-71.

Carrington, "The Grouse-Fly (*Ornithobia pallida*) in relation to Grouse Disease," *Field*, Aug. 29, 1891.

Klein, "The Etiology and Pathology of Grouse Disease," 8vo, 1892, pp. 130.

Harting, "The Causes of Grouse Disease," *Zool.*, 1892, pp. 337-341, and *Chambers's Journal*, June 11, 1892.

Tegetmeier, Grouse Disease exceptional in Ireland, in Co. Antrim, *Field*, Aug. 21, 1897.

Shipley, Diseases of Grouse, "Encyclopædia of Sport," 1898, p. 491.

PTARMIGAN. *Lagopus mutus* (Montin). Length, 14 in.; wing, 7·5 in.; tarsus, 1·25 in.

Resident only on the higher mountains of Scotland and the Hebrides. The best hills for Ptarmigan in Scotland are in Ross-shire around Loch Maree, and in the Auchnashellach Forest; Sutherland, Caithness, and parts of Perthshire. Formerly in the Isle of Rum, and in S.W. Scotland—Kirkcudbrightshire and Dumfriesshire (Service, *Zool.*, 1887, p. 81). In Orkney the last were shot in Hoy in 1831.

As to its alleged former occurrence in Cumberland, see More, *Zool.*, 1881, p. 44, and Macpherson, "Fauna of Lakeland," 1892, p. 333. The assertion that Ptarmigan once existed in Wales is without foundation (*Zool.*, 1881, p. 45).

As to hybrids between Ptarmigan and Red Grouse, see *P. Z. S.*, 1878, p. 793, and *Zool.*, 1892,

p. 41. See also Millais, "Game Birds," 1894, p. 183, for a detailed account of the seasonal changes of plumage in the Ptarmigan. On the shedding of the claws in Ptarmigan and Grouse, see—

Nilsson, Rep. Zool. Acad. Sci. Stockholm, 1828, p. 104.

Meves, Ofv. Svensk Vet. Akad. Fordhandl., 1871, p. 772.

Dresser, "Birds of Europe," vol. vii. p. 189.

Stejneger, *Amer. Nat.*, 1884, p. 774; *Zool.*, 1887, p. 258.

Newton, "Dictionary of Birds," art. *Moult*, 1894.

Tegetmeier, *Field*, Sept. 24, 1898, with figure.

Harting, *Field*, Oct. 1, 1898, and figure by J. G.

Millais in his "Game Birds," 1894, p. 138.

This singular process of shedding the claws has been noticed in other birds of the Grouse family, *e.g.* the Hazel Hen, Capercaillie, and Black-game.

The best bags of Ptarmigan in Scotland are credited to the Hon. Geoffrey Hill, who in August and September 1866, at Auchnashellach, shot, on Aug. 25, 122; on Aug. 29, 82; and on Sept. 17, 60 birds. On Aug. 22, 1898, 45½ brace were shot in one day at Drumochter, Inverness-shire. The average weight of a Ptarmigan is 20 oz., or rather less than that of a Red Grouse.

Fam. PHASIANIDÆ.

PHEASANT. *Phasianus colchicus*, Linnæus. Length,
♂ 36·5 in., ♀ 24·5 in.; wing, ♂ 10 in., ♀ 8·5 in.; tarsus,
♂ 2·75 in., ♀ 2·5 in.

The precise date of the introduction of the Pheasant into Great Britain is uncertain; but there

is evidence to show that it was prior to the invasion of the Normans, and that we are probably indebted for this game-bird to the enterprise of the Romans (see *The Ibis*, 1869, p. 358).

The species first imported was that which owes its scientific name to the river Phasis in Colchis, on the wooded banks of which it was said to have been originally discovered, and where it is still common, the river being the modern Rion in Transcaucasia. In the eighteenth century the Chinese *Phasianus torquatus* and the Japanese *P. versicolor* were introduced, and the present race of Pheasants of this country has sprung from the intermingling of these three species. The precise date of the introduction of each is uncertain, but there is some evidence to show that the Ring-necked Pheasant from China was known in England before 1741, and that the Japanese *versicolor* probably came into England in that year. When Peter Collinson visited Capt. Goff, "an East India director," in Essex in 1742, he saw some "beautiful China pheasants, and a third sort different from them which came over last year."¹ The bird which Dr. John Hill in his "History of Animals" described in 1752 as "the East Indian Pheasant," was apparently *P. versicolor*, which, he remarked, "is sometimes brought over to us." In my "Ornithology of Shakespeare" (pp. 210-216) I have collected from various sources, some curious information relating to the

¹ The Correspondence of Dr. Richardson of Bierley, Yorkshire. Privately printed. 8vo. Yarmouth, 1835, p. 391.

early introduction of the Pheasant and its preservation in England in former times.

In Scotland the first mention of the Pheasant, presumably *Phasianus colchicus*, is to be found in a Statute of James VI., 1594. As to Ireland, Giraldus Cambrensis states that there were none there in his day (1183-86), but Fynes Morrison found Pheasants plentiful during his stay there in 1599-1603 (*Zoologist*, 1881, p. 437).

Another beautiful species which has been introduced into this country of late years with some success is the Bar-tailed or Reeves's Pheasant. It has been turned out in Norfolk by Lord Walsingham, in Suffolk by Lord Rendlesham, in Northamptonshire by Lord Lilford, and in Scotland by Lord Seafield at Balmacaan on Loch Ness, and Lord Tweedmouth at Guisachan in Ross-shire, where the rough nature of the ground is well adapted to its requirements (Millais, *Field*, Feb. 9, 1896). Some useful hints on the management of Reeves's Pheasant preparatory to turning out are given by Mr. Sutherland, head-keeper at Burrill, near Bedale (*Field*, Dec. 4, 1897), and for remarks on the fertility of cross-bred Reeves's Pheasants see *Field*, Jan. 21 and Sept. 2, 1899.

Hybrids between *P. colchicus* and *P. reevesii* have been shot on Lord Rendleham's estate in Suffolk, and elsewhere.

The so-called Bohemian Pheasant (a misnomer, it having no connection with Bohemia) is a mere variety, and often has a white collar.

Numerous other topics in connection with Pheasants cannot be discussed at length; it must suffice to give references to a few of them.

The speed of a Pheasant on the wing has been estimated by Mr. Griffiths from a series of experiments to be at the rate of 38 miles an hour (*Field*, Feb. 19, 1887). Several instances have been reported of Pheasants flying through plate-glass windows, misled by the reflection of trees on the glass (*Field*, Oct. 24, 1896, and March 13, 1897). Although not usually taking long flights, they have been known to cross the Humber from Yorkshire into Lincolnshire, near Grimsby (Cordeaux), though Mr. Millais saw five or six Pheasants which attempted to cross Loch Ness at Foyers, where it is more than a mile wide, drop into the water when about three-parts of the way across. Pheasants if winged when crossing water will swim ashore, and have been seen to take to the water voluntarily (*Field*, Dec. 13, 1890). In a state of nature they are polygamous; eight to ten eggs are usually laid; the period of incubation is twenty-four days. Sometimes a hen Pheasant will lay in a Partridge's nest, and *vice versa*; occasionally in a tree many feet from the ground, in the deserted nest of some other bird (*Zool.*, 1894, pp. 227, 266, and *Field*, June 15, 1895, and May 1897); and in the thatch of a straw-stack 10 feet from the ground (*Field*, June 20, 1896). As to the suppression of scent in a sitting Pheasant, so essential to its safety, see Tegetmeier, "Pheasants," 3rd ed., p. 73. It is

said that the "assumption of male plumage by the hen is *invariably* caused by disease of the ovary, and the birds exhibiting this change are without any exception always barren and useless" (*op. cit.*, p. 138). This, however, is not always the case (see *Field*, Nov. 1, 1884; Aug. 21, and Sept. 4, 1886; and Gurney, *Trans. Norf. Nat. Soc.*, iv. pp. 184, 392). The converse case of a male bird assuming hen's plumage has been known to occur but rarely (*Ibis*, 1897, p. 438).

Amongst the diseases to which Pheasants are liable, the most troublesome is that known as "gapes," caused by the presence of small red worms (*Syngamus trachealis*) in the windpipe, provoking a spasmodic gaping in the effort to prevent suffocation. The best published essay on the subject, that of M. Pierre Mégnin (*Bull. Soc. Zool. France*, 1880), was written at the instigation of Lord Walsingham, and an English translation with two coloured plates (1883) has been issued by Messrs. West, Newman & Co.

"Tuberculous disease" of the lungs and liver is the result of overcrowding, inter-breeding, breeding from weak stock, and rearing on tainted ground.

"Cramp," which generally attacks chicks hatched from purchased eggs and constitutionally weak stock, is not a true "cramp," though causing lameness, but a diseased condition of the leg bones, which become brittle and are easily broken. The remedies for these and other complaints may be found in Tegetmeier's "Pheasants for Coverts and Aviaries," 3rd ed., 1897.



1. 2. House Sparrow, ♂. ♀. 3. Tree Sparrow, ♂. 4. Rock Sparrow, ♂. ♀. 5. 6. Greenfinch, ♂. ♀. 7. 8. Siskin, ♂. ♀.

9. 10. Brambling ♂ sum. & winter. 11. 12. Goldfinch, old & young. 13. 14. Siskin, ♂. ♀.

15. 16. Mealy Redpoll, ♂. ♀. 17. 18. Linnets, ♂. ♀. 19. Twite.

As to "fowl *enteritis*," a fatal epidemic disease attacking Pheasants, see the remarks of Dr. Klein in his valuable work, "Grouse Disease and Fowl Enteritis," 1892, published by Messrs. Macmillan.

Instances of Pheasants being poisoned by eating yew leaves are occasionally reported (*Field*, Nov. 25; Dec. 2 and 23, 1876; Dec. 20, 1890; Sept. 17, 1892; Nov. 11, 1893; and *Zool.*, 1893, p. 146). In some cases the birds were killed by eating the common yew, in others by the Irish variety. The poisonous alkaloid known as *taxine* exists in a larger quantity in the leaves of the male than in those of the female plant; but the red mucilage surrounding the ripe seed is innocuous, and many birds are fond of it. See an article on yew poisoning, *Journ. Roy. Agric. Soc.*, vol. iii. p. 698, 715 (1892); *Nature*, 1893, p. 285, and Dr. Lowe's recent work on yew trees (1897).

As to poisoning with bracken, see *Field*, Aug. 13, 1892, and *Agric. Gazette*, April 1894.

"Lead-poisoning," resulting in paralysis, from swallowing grains of shot picked up in the coverts is another cause of mortality amongst Pheasants (*Field*, Feb. 19 and Mar. 4, 1876; Feb. 27, 1897; May 20, 1899; and *Ann. Scot. Nat. Hist.*, 1899, p. 112). "Wool-gathering" is a further source of danger to young pheasants, the result of setting coops in a field where sheep have grazed. The young birds pick up shreds of wool which choke the gizzard, and thus prevent the passage of food.

The normal weight of an adult cock Pheasant

varies from 3 lbs. to $3\frac{1}{2}$ lbs., a hen about $2\frac{1}{2}$ lbs. ; but birds fattened on maize have been found to weigh upwards of 5 lbs.

PARTRIDGE. *Perdix cinerea*, Latham. Pl. 18, fig. 1.
Length, 12·5 in. ; wing, 6 in. ; tarsus, 1·5 in.

Resident, and generally distributed. The protective efforts of game-preservers and the now prevalent practice of Partridge "driving," by killing off the old cocks which lead the coveys, have contributed greatly to the increase of this species, especially in Norfolk, Suffolk, and Cambridgeshire. St. John characterised November as "the season in Scotland at which Partridges migrate from the high grounds to the cultivated fields" ("Tour in Sutherland," ii. p. 44); and elsewhere they are reported to be to some extent migratory (*Zool.*, 1893, p. 433, and 1894, p. 18).

The "horse-shoe" mark on the breast is not a distinctive character of the cock bird. The sexes are otherwise distinguishable. An old cock Partridge has the sides of the neck grey, the hen has the same feathers olive-brown with longitudinal buff stripes, while the median upper wing coverts, which in the cock are sandy-brown with transverse chestnut and black lines, are in the hen dark brown with buff cross-bars. Old birds have the first-flight feather rounded and the legs grey; in young birds the first-flight feather is pointed and the legs olive.

Albino Partridges are occasionally reported; four in one covey (Col. Hamilton, "Reminiscences

of an Old Sportsman," ii. p. 20), and eleven on one property (*Zool.*, 1881, p. 471). Partridges with white "horse-shoes" have been frequently noticed. Occasionally an approach to melanism has been observed (*Field*, Feb. 7, 1891, and *Zool.*, 1894, p. 34), while a pale grey variety (*Ibis*, 1864, p. 225) and a chestnut variety, *Perdix montana*, Jardine, from time to time attract attention (*Field*, April 9, 1892), the last-named more often in Scotland, and particularly in Forfar and Aberdeenshire.

The alleged enmity between Grey and Red-legged Partridges is a fiction (*Zool.*, 1889, p. 119, and Babington, "Birds of Suffolk," p. 109). The two species occupy the same fields, and will sometimes lay in each other's nests. It is only in the pairing time that the cock birds become pugnacious and drive away intruders. Hybrids between the two species have been reported (*Field*, Oct. 26, Nov. 9, 1895, and Oct. 6, 1900), but the specimens called hybrids shown to me were young "Red-legs," which before moulting resemble the grey species about the scapulars and wing coverts. A young "Red-leg" has no black gorget, but some black-edged feathers on the breast; the outer secondaries are sandy-brown with buff crossbars edged with black; wing coverts sandy-brown with dark markings on their inner webs, and pale buff stripes down the shaft.

The weight of a full-grown Partridge is about 14 oz. to 15 oz., but in Norfolk fine birds have occasionally reached 17 oz. and even 18 oz. (T. J. Mann, *Field*, Oct. 7, 1893). In Oct. 1885 two

unusually heavy birds, weighing respectively 19 oz. and 19½ oz., were shot in Norfolk (*Zool.*, 1886, p. 480).

The general impression that Partridges which "tower" when shot have received an injury to the *brain* is erroneous. In numerous cases examined, the peculiar action known to sportsmen as "towering" was found to be due to partial suffocation, caused by injury to the *lungs* and escape of blood into the air-passages. When a shot pellet injures the jugular vein and windpipe, the blood flowing from the former into the latter causes suffocation and a loss of the sense of direction: the bird beats its wings aimlessly, rises to a great height, and falls when suffocation is complete.

Great numbers of Hungarian Partridges, not specifically distinct from ours, are annually imported and turned out to increase and improve the native stock. Those who have made such experiments report favourably of the result (*Field*, Oct. 28, and Nov. 4 and 11, 1893). Instructions for turning out are given, *Field*, Jan. 16, 1897; Jan. 22, 29, and Feb. 5, 1898. Under natural conditions incubation lasts twenty-one days; but in an incubator 80 per cent. of Partridges' eggs hatched on the twenty-fourth day (Evans, *Ibis*, 1891, p. 75).

A good method of rearing Partridges, as adopted by a Hampshire gamekeeper, is described, *Field*, March 23, 1889. For an interesting account of "a tame covey," reared under a bantam hen, taking to the fields by day and returning to be fed, see *Field*,

Oct. 1, 1881; and for other reports of domesticated Partridges, *Field*, Feb. 7, 1891, April 8, 1893, and March 3, 1894.

RED-LEGGED PARTRIDGE.¹ *Caccabis rufa* (Linnæus).

Length, 13·5 in.; wing, 6·25 in.; tarsus, 1·75 in.

The introduction of this bird into Suffolk, which was attempted about the year 1770 by the Marquis of Hertford and Lord Rendlesham, was effectually carried out by Lords Alvanley and De Ros at Culford in Suffolk in 1824 and following years (see Stevenson, "Birds of Norfolk," vol. i. p. 406). It is now a local resident in the eastern and mid-land counties, gradually extending its range. See my article on the introduction of this bird into England, *Field*, Jan. 27, 1883, and remarks on its distribution in the west of England in Rodd's "Birds of Cornwall," pp. 77, 310. In 1888 a large number were turned down for "driving" near Wimborne and Poole, Dorsetshire. In regard to its extension westward, it may be mentioned that one was shot near Ross, in Herefordshire, in Oct. 1881, several at Andoversford, in Gloucestershire, in Sept. 1896, one at Okehampton, Devon, in Oct. 1882, and one at Kingston near Taunton in Dec. 1882 (*Zool.*, 1888, p. 176). In Oct. 1892 one was obtained at Bagillt, in Flintshire (*Field*, Oct. 22, 1892). As to the extension northward, between

¹ Red-legged Partridges of the genus *Caccabis* have fourteen feathers in the tail, instead of sixteen to eighteen as in *Perdix*, and, moreover, have spurs or wart-like protuberances on the legs, which is not the case with the Grey Partridges.

1880 and 1890 coveys were hatched nearly every year near Selby, in Yorkshire, and some were shot there in 1894. In 1899 one was killed near Scarborough (*Field*, April 1, 1899). A few are recorded to have been met with in Scotland, *e.g.* near Aberdeen (R. Gray); in Wigtonshire in Dec. 1892, where, as I am informed by Sir Herbert Maxwell, some had been previously turned out; in Morayshire, in Dec. 1891 and Sept. 1892, near Findhorn, where four pairs were liberated by Captain Dunbar Brander; and in Forfarshire, Nov. 1898 (*Ann. Scot. Nat. Hist.*, 1900, p. 50). In Ireland it is unknown, except as an introduced species in Co. Galway. According to Baikie and Heddle ("Fauna Orcadensis," p. 56), this species, together with the Common Partridge, was introduced into Orkney by the Earl of that ilk in 1840, but is no longer to be found there.

As to the migratory habits of this species, see Stevenson, "Birds of Norfolk," i. pp. 413-416, and Cordeaux, *Field*, April 15, 1899.

The Red-legged Partridge is not so liable to variation in colour as the Grey Partridge, but half-a-dozen white ones have been found in a covey in Suffolk (*Field*, Dec. 19, 1896).

The call-notes of the two species are very dissimilar; that of the Grey Partridge sounds like *ch-isick*; that of the red-legged bird is *chuk-chukor*, perpetuated in the native name for its Indian relative, which has a similar call.

Many instances of Red-legged Partridges nesting

on stacks have been reported, and one case of nesting in a tree (*Field*, May 29, 1897). These birds will perch on fences and low boughs. I have heard of one that was caught in a pole trap.

The average weight of a Red-legged Partridge is from 16 to 18 oz. In Dec. 1879 I shot one at Northwold, near Brandon, which weighed 22 oz. One of 23 oz. was killed in Essex (*Field*, Nov. 19, 1881), and one of 25 oz. at Hanworth, Norfolk (*Field*, Nov. 26, 1881).

Obs.—The Barbary Partridge, *Caccabis petrosa* (Gmelin), having the nape and collar brown instead of black, has been shot at Edmondthorpe near Melton Mowbray; at Sudbourn, Freston, and Ipswich; at Beverley, Yorkshire; and at Killiganoon, Cornwall; but the occasional occurrence of this species in England is due to the fact that birds have been turned out or eggs have been imported as those of the Red-legged Partridge, and hatched out here. It has no claim to be included amongst British birds, except as an introduced species.

Amongst other imported "game-birds" may be mentioned the Virginian Quail (*Ortyx virginianus*), of which an account is given below; the Andalusian Hemipode (*Turnix sylvatica*) (see p. 155); the Hazel Grouse (*Tetrao bonasia*), nine of which were turned out by Colonel Cooper at Markree Castle, Co. Sligo; the Francolin (*Francolinus vulgaris*),¹ thirty

¹ See Lilford "On the proposed acclimatisation of the Francolin," *Field*, April 13, 1878, in which the results of his experiments with the Virginian Colin are also given, and a plan put forward for the introduction of the Hazel Grouse.

of which, imported from Kurrachee, were liberated at Newmore, Ross-shire, by Mr. G. Inglis; the Tinamu (*Tinamus rufescens*) of which several consignments, imported at different times from South America, were liberated at Brightlingsea, Essex, by Mr. John Bateman; and the Wild Turkey (*Meleagris gallopavo*), which has been successfully introduced and naturalised in Richmond Park, Windsor Great Park, Blickling, Norfolk, as well as in Dumbartonshire and at Invergarry in Inverness-shire. See the chapter on Wild Turkeys in my "Essays on Sport and Natural History," pp. 179-184.

QUAIL. *Coturnix communis*, Bonnaterre. Pl. 18, figs. 2, 3, 3a. Length, 6·75 in.; wing, 4·25 in.; tarsus, 1 in.

Generally regarded as a summer migrant to the British Islands; but years ago, when much commoner, many used to remain during the winter, especially in Ireland (Fane and Cooper, *Naturalist*, Dec. 1853). A good article by Mr. C. B. Moffat on "The Quail in Ireland," will be found in the *Irish Naturalist*, 1896, pp. 203-207. As to its former abundance in that country, see the statistics given by Mr. Barron Newell of Waterford, *Field*, Jan. 2 and Feb. 9, 1897, and by Mr. Ussher in his recently published work.

On the east of Scotland, where it would be expected to arrive in spring, strange to say, it is by no means so common as on the west, although met with in nearly all the counties from Berwick to Orkney, Shetland, and the Faroës. Its range northward and

westward extends to the Outer Hebrides, where the nest has been found in Lewis and North Uist. In Sept. 1900, Mr. Eagle Clarke unexpectedly found a nest with eggs of this bird in Shetland. As the Quail feeds almost exclusively on the seeds of weeds, such as plantain, persicaria, dock, wild vetch, and chickweed, it is a good friend to the farmer and ought everywhere to be encouraged.

The number of Quails met with by Partridge-shooters in England and Ireland has of late years diminished very considerably, and there can be no doubt that this is mainly due to the wholesale manner in which they are netted for the markets *in spring* along the Mediterranean coast, when on their passage from North Africa to their breeding haunts in Europe. If the netting of Quails and the shooting of Woodcocks *in spring* were prohibited by international law, the sportsmen of Europe would be vastly benefited, and so would the farmers. As to turning out Quails in England to increase the stock, see *The Field*, May 23, 1891.

VIRGINIAN QUAIL. *Ortyx virginianus* (Linnæus).

Length, 8·5 in.; wing, 4·5 in.; tarsus, 1·25 in.

This bird, a native of the Eastern United States, can only be regarded as an introduced species. Early in the present century several pairs were turned out in Norfolk at Holkham by the Earl of Leicester (Stevenson, "Birds of Norfolk," vol. i. p. 436); and in 1833 many were introduced at Teddesley in Staffordshire by Mr. E. J. Littleton, M.P.

(*Mag. Nat. Hist.*, vol. iv. p. 153). In 1840 a number were liberated in the neighbourhood of Windsor by his Royal Highness the late Prince Consort. In 1844 Mr. Thornhill of Riddlesworth turned out a number in Suffolk, and in the same year some were introduced at Ballindalloch. In 1857 four brace were turned out in East Lothian.

In April 1867 three males and four females were set free by H.R.H. the Prince of Wales at Sandringham (*Field*, Aug. 26, 1871). Since that time, the Maharajah Duleep Singh and other game preservers in Norfolk and Suffolk have turned out a great number. On Dec. 5, 1879, I shot one at Northwold, near Brandon, which had doubtless strayed from Elveden. Lord Walsingham turned out a good many at Merton Hall, near Thetford, where in the summer of 1887 I saw a deserted nest containing addled eggs. These, unlike the eggs of our Quail, are pure white and larger.

Near Oundle, Northamptonshire, many hundreds were turned out by Lord Lilford. Mr. Boulton has one which was shot at Cottingham, near Beverley, Yorks; and Dr. Bree has recorded one killed at Birch in Essex (*Field*, June 26, 1878). It is thus easy to account for the appearance of the specimens which have been shot at various times, and chronicled as rare British birds. But though hundreds have been liberated in this country, all attempts to naturalise this species have failed.

Montagu states that "the late General Gabbitt

liberated many on his estates in Ireland, but in two years the breed was lost."

Obs.—Another species, known as the Andalusian Hemipode, *Turnix sylvatica* (Desfontaines), a native of Southern Spain and Barbary, is recorded to have been met with at Chipping Norton, Oxfordshire, Oct. 29, 1844 (*Zool.*, 1845, p. 872, and 1849, p. 2599), as well as at Fartown, near Huddersfield, April 7, 1865 (Gould, *Proc. Zool. Soc.*, 1866, p. 210). But as this bird is not migratory in its habits, its introduction must have been effected by human agency.

ORDER VII. ALECTORIDES

Fam. GRUIDÆ.

CRANE. *Grus cinerea*, Bechstein. Pl. 26, figs. 10, 10a.
Length, 36 in.; wing, 22 in.; tarsus, 9·5 in.

The Crane was at one time resident in England, and its bones are still found in our fens. Its eggs were for some centuries protected by statute. In the time of King John this bird was sufficiently common in Cambridgeshire and Lincolnshire for the king to capture as many as seven and nine in one day with gerfalcons. The details are given in my "Essays on Sport and Nat. Hist.," 1883 (pp. 77–78). Turner in his *Avium Historia*, 1544, states that he had often seen the young ones—in *locis palustribus earum pipiones sæpissime vidi*. Leslie also in 1578 wrote of this bird as

being common (*grues plurimæ*) in Scotland (*De origine moribus et rebus gestis Scotorum*, p. 25).

In Ireland the Crane was formerly so plentiful that, according to Giraldus (*Topog. Hibern.*, p. 705), flocks consisting of a hundred individuals were common. His words are, "*In tanta vero numerositate se grues ingerunt, ut uno in grege centum et circiter numerum frequenter invenias.*" Flocks were seen in Waterford and Cork in 1739.

Sir Thomas Browne in 1667 wrote of the Crane as often seen in Norfolk in hard winters. In Ray's time also (1678) Cranes might be observed in numbers during the winter in the counties above named, and even a century later Dr. John Hill was able to state that he had seen large flocks of Cranes in Lincolnshire ("History of Animals," 1752). Under the provisions of an "Act to avoide destruction of Wilde Fowle," passed in the reign of Henry VIII. (1534), eggs of the Crane, as well as those of the Bustard, Bittern, Heron, and Shovelarde (*i.e.* Spoonbill), were specially protected under pain of imprisonment and fine, and in the case of the Crane this prohibition was in force so late as 1780, in which year amongst certain Fen laws passed at Revesby was one decreeing that "no person should take any Swans' eggs or Cranes' eggs, or young birds of that kind, on pain of forfeiting for every offence 3s. 4d." (Thompson, "Hist. Boston," p. 675). At the present day this bird can only be regarded as a rare visitant in late autumn and winter.

Amongst comparatively recent records of its

occurrence in the British Islands the following may be mentioned :—

Four at Inverernie, Nov. 1875 (*Field*, Dec. 4, 1875).

One at Scilly, April 1881 (*Zool.*, 1881, p. 213).

One near Spalding, Lincolnshire (*Zool.*, 1882, p. 463).

One near Lough Mask, Co. Mayo, Jan. 1884 (*Zool.*, 1884, p. 72).

One near Colchester, Nov. 1888 (*Zool.*, 1889, p. 34).

One at Oakley, Essex, Sept. 1889 (*Zool.*, 1889, p. 434).

One near Bridgewater, Dec. 1889 (*Zool.*, 1890, p. 75).

One, South Cliff Farm, Flamborough, Feb. 1892 (*Zool.*, 1895, p. 59).

One near Lowestoft, June 1893 (*Zool.*, 1893, p. 313).

One near Thurles, Co. Tipperary, Sept. 1896 (*Irish Nat.*, 1898, p. 51).

Of four examples carefully examined, the weight was ascertained to be 8 lbs. 12 oz. ; 10 lbs. 8 oz. ; 10 lbs. 13 oz. ; and 11 lbs., the expanse of wing in the last-named being 6 ft. 9 in.

A graphic account of John Wolley's discovery of the nest of the Crane in Lapland is given in *The Ibis*, 1859, pp. 191–196. Mr. Howard Saunders obtained the eggs of this bird in the marshes of Andalusia in May 1868, and Mr. F. C. Selous in May 1899 found several nests with eggs at a great salt lake near Appa, in Asia Minor.

In regard to the subject of migration, see a note on the southward flight of a Crane in autumn (*Zool.*, 1896, p. 145). By means of a message enclosed in a cartridge case, the bird was traced from Ascania Nova, in Southern Russia, where it was bred, to Dongola, where it was shot in December following.

In an article entitled “Small Birds carried on

Migration by larger ones" (*Field*, March 31, 1888), I have noted several cases of small passerine birds being transported on the backs of Cranes — cases vouched for by independent witnesses in countries widely separated.¹ But see Newton, "Dict. Birds," p. 550, art. *Migration*.

For an article on early records of this bird in England, see Harting, *Field*, Dec. 23, 1882. Its habits and migrations have been described at length by Blyth in his "Monograph of the Cranes," 1881, and by Prof. Newton, "Dict. Birds," art. *Crane*.

Both the Demoiselle Crane (*Grus virgo*) and the African Crowned Crane (*Balearica pavonina*) have been recorded to have been shot in the British Islands, the former at Deerness, Orkney, in May 1863, the latter near Dalry, in Ayrshire, in Sept. 1871; but as both these species are imported from time to time with other ornamental waterfowl, it is probable that those referred to had escaped from a state of semi-domestication.

Fam. OTIDIDÆ.

BUSTARD. *Otis tarda*, Linnæus. Pl. 24, fig. 5. Length, ♂ 48 in., ♀ 30 in.; bill, 2 in.; wing, ♂ 24·5 in., ♀ 20 in.; tarsus, ♂ 6 in., ♀ 5·25.

Towards the end of the last and beginning of the present century the Bustard was one of

¹ A year after this article had appeared it was abstracted and published as a chapter (without acknowledgment) in a little book entitled "Sylvan Folk: Sketches of Bird and Animal Life in Britain," by John Watson, 1889.

the most characteristic birds to be met with on the Yorkshire and Lincolnshire wolds, the wide "brecks" of Norfolk and Suffolk, the heaths of Newmarket and Royston, and the open down land of Berkshire, Wiltshire, Hants, and Sussex. The last examples of the native race were killed in Norfolk in 1838, while in Suffolk none were known to breed after 1832. In Yorkshire Bustards were met with at intervals until 1832 or 1833, when it is said the last was trapped at Boynton, near Bridlington.¹ Of Wiltshire, Montagu reported in 1813 that none had been seen in their favourite haunts on Salisbury Plain for two or three years previously; while in Sussex and Hants the native race of Bustards probably disappeared very soon after Gilbert White wrote of them as being seen "in the midst of the downs between Andover and Winton." It would appear that the extension of plantations broke up the open country which the birds loved to frequent, and the introduction of improved agricultural implements, such as the "corn-drill" and the "horse-hoe," led to the discovery and destruction of the eggs in the wide "brecks," or fields of winter corn. (See Stevenson, "Birds of Norfolk," ii. p. 11.) Since then the Bustard's claim to be regarded as a British bird has rested solely on the occasional arrival of wanderers from the Continent, which usually make their appearance in winter. A remarkable immigration of

¹ See an article, by the present writer, on the former occurrence of the Bustard in Yorkshire, in *The Field* of March 6, 1897.

Bustards took place in the winter of 1879–80, and the occurrence then of eight or nine of these fine birds (of which only one was a male) was noticed at the time in the pages of *The Field* and *The Zoologist*. The last visitation of note occurred in the winter of 1890–91, when amongst the localities visited the following were recorded: Southminster, Essex, December 1890; Llanelly, Carmarthenshire, December 1890; Romsey, Hants, January 1891; Winchelsea, Sussex, January 1891; Stiffkey, Norfolk, Jan. 19, and Chippenham, Wilts, Feb. 4, 1891. Details of all these occurrences will be found in an article on the “Recent Visitation of Bustards,” published in *The Field*, of Feb. 28, 1891. Since that date one was shot at Costessy, Norfolk, Feb. 1, 1894, and a few others have been met with in other parts of the country; one of the latest reported was shot in October 1897 near Market Lavington, an ancient haunt of the species on the Wiltshire downs.¹

The former existence of the Bustard in parts of Scotland is referred to by Hector Boece in 1527 and Bishop Leslie in 1578. Fleming states (“Hist. Brit. An.,” p. 115) that in 1803 one was shot in Morayshire by William Young of Borough Head. Another was seen in Strath Skinsdale, Sutherland-

¹ Aubrey, in his notes on the Natural History of Wiltshire, written between 1656 and 1691 (ed. Britton, 1847, p. 164), has this remark: “On Salisbury plaines, especially about Stonehenge, are bustards. They are also in the fields above Lavington.” Here in 1801 a nest containing two eggs was found in a wheat-field shortly after a male bustard had been captured in the neighbourhood. A. C. Smith, “Birds of Wiltshire,” p. 353.



1. 1a. Roller. 2. 2a. Kingfisher, ad. and foot. 3. 4. 4b. Golden Oriole, ♂. ♀ and foot. 5. 5a. Starling.
6. 7. Rose-coloured Pastor, ad. ♂ and young. 8. 8a. Hoopoe.

shire, in August 1861, and at Stronsay Vale, in Orkney, a hen Bustard was shot, March 29, 1876, the first recorded visit of this species to those islands (*Field*, April 8 and 15, 1876, and *Zool.*, 1876, p. 4927).

The evidence bearing on the statement that Bustards were formerly coursed with greyhounds has been critically examined by the Rev. A. C. Smith in his "Birds of Wiltshire," 1887, and the fact established and explained.

It is worthy of note that just as the Bustard was on the verge of extinction as a breeding species in England it was granted a "close time" by Act of Parliament; but the protective legislation came too late. In 1831 the principal Game Act was passed (1 and 2 Will. 4, cap. 32), and amongst other things provided (by sect. 3) that no Bustard was to be shot between March 1 and Sept. 1, under a penalty of £1 and the costs of conviction. The eggs also were protected by sect. 24 of the same statute (as they had been by 25 Hen. 8, c. 11), but within a very few years of the passing of that Act the last of the native race of Bustards, as above shown, had disappeared.

About the time that Bustards' eggs were being collected at Tilshead, in Wiltshire, for the purpose of hatching them under hens, as related by Montagu (*Orn. Dict.*, 1802), another experimenter was making similar attempts in Norfolk. Mr. George Hardy, house-surgeon to the Norfolk and Norwich Hospital from 1793 to 1826, received in the years 1802-1808

many Bustards' eggs from different parts of the county, which he placed under hens, and hatched out in an enclosure at the back of the hospital. Interesting details, too long to be quoted here, will be found in the second volume of Stevenson's "Birds of Norfolk."

Some years ago the Acclimatisation Society of Paris offered prizes for the successful domestication of the Bustard, one of the conditions being that the birds should be proved to have laid and hatched eggs in confinement. In the *Bulletin* of that Society for 1861 (p. 318), M. Althammer communicated the result of his attempts to domesticate this bird in the Tyrol. Three eggs were laid, the hen bird sat, and incubation lasted twenty-five days, at the end of which time one young one was hatched.

In 1876 an attempt was made in Warwickshire to domesticate the Bustard by Mr. F. Lythall, of Offchurch, near Leamington, who turned out some on his farm. On Dec. 10 in that year he wrote, "The Bustards are tame, and eat out of the hand. They are loose by day, and shut up at night. I think they pair, but they have not laid at present, or if they have, I have not found the eggs" (*Zool.*, 1880, p. 254). As no further news of them was received, it was conjectured that the experiment had not proved successful. In February of that year (1876) strenuous efforts were made by Mr. H. M. Upcher to protect a Bustard which had made its appearance in Blackdyke Fen, Hockwold, and which remained there for seven weeks. The steps

taken to provide it with a mate, which was presented for that purpose by the late Lord Lilford, were described shortly afterwards in *The Field* of April 8, 1876, and *Trans. Norf. Nat. Soc.*, ii. pp. 307-311.

While these pages were passing through the press a further effort was being made to reintroduce the Bustard in what was formerly one of its favourite haunts on the East Anglian "brecks." (See *The Field*, March 3, 1900, and Mr. St. Quintin's experiments, March 17, 1900.) This effort was due to the zeal of an English sportsman in Spain, who at considerable trouble and expense caused several of these birds to be captured alive and sent to England, where they arrived in the month of August. With the co-operation of Lord Walsingham and Lord Iveagh they were taken care of for some time in a large enclosure before being allowed their freedom on English soil. The result of this experiment remains to be seen, though there is little hope that it will prove successful.

As to the measurements and weight of Bustards, see my article on the largest birds that fly, *Field*, Sept. 16, 1899. Many other points of interest in connection with the history and habits of the Bustard, and its former distribution in Great Britain, cannot be mentioned in the space here available, and the reader must be referred to Stevenson's "Birds of Norfolk," the second volume of which contains an admirable coloured figure of this bird by Wolf; Babington's "Birds of Suffolk;" Mansel

Pleydell's "Birds of Dorset;" A. C. Smith's "Birds of Wilts;" and Prof. Newton's invaluable "Dictionary of Birds." An article by Mr. W. P. Pycraft in *Natural Science*, Nov. 1898 (pp. 313-323), sums up what is known concerning the gular pouch of the Bustard, the existence of which has been alternately affirmed and denied, and contains the latest results obtained from a dissection made by him of a specimen in which a pouch was undoubtedly present, as had been previously demonstrated by Cullen, *Ibis*, 1865, p. 143, and Flower, *P. Z. S.*, 1865, p. 747; see also Newton, *Ibis*, 1862, pp. 107-127, and "Dict. Birds," art. "Bustard."

LITTLE BUSTARD. *Otis tetrax*, Linnæus. Pl. 24, figs. 6, 7. Length, 18 in.; wing, 9·5 in.; tarsus, 2·5.

An occasional winter visitant. When the first edition of this Handbook was published in 1872 more than forty instances of its occurrence in England were known to me: since then I have noted many others; amongst the latest, one shot at Feltwell, Jan. 25, 1898, and another, a male in summer plumage, killed at Kessingland, near Lowestoft, in May of the same year.

In Scotland it is very much rarer. One was obtained near Montrose, Dec. 1833; a second near St. Andrews, March 6, 1840 (*vide* Macgillivray); a third in the parish of Halkirk, Caithness, in June 1848, of which a detailed account is given by Messrs. Buckley and Harvie-Brown ("Fauna of

Sutherland and Caithness," p. 209),¹ and a fourth at Westfield, in the parish of new Spynie, near Elgin, Feb. 8, 1861.

In Ireland the Little Bustard is only known with certainty to have occurred four times : the first was shot in the bog of Killough, Co. Wicklow, Aug. 1833 (Thompson); the second in Ballycotton bog, Co. Cork, Dec. 24, 1860, as I was informed by the late Lord Clermont; the third near Youghal, Nov. 14, 1883 (*Field*, Dec. 8, 1883, and *Zool.*, 1884, p. 69); and the fourth in Co. Mayo, Dec. 1887 (*Zool.*, 1888, p. 108).

For a note on the food of the Little Bustard, see *Zool.*, 1895, p. 228. The weight of one shot on Drayton Moor, Somersetshire, Oct. 19, 1894, was 2 lbs. 2 oz., or the weight of a hen pheasant.

ORDER VIII. LIMICOLÆ

Fam. CHARADRIIDÆ.

STONE CURLEW. *Edicnemus crepitans*, Temminck.
Pl. 19, figs. 1, 1a. Length, 17 in.; bill, 1·5 in.; wing, 9·75 in.; tarsus, 3 in.

The Stone Curlew, Thick-knee or Norfolk Plover, is a summer migrant, especially to the chalk districts, but is occasionally found in winter in Cornwall (Rodd), Devon (M. A. Mathew), and the Isle of Wight (A. G. More). These localities, there-

¹ It is remarkable that this bird was shot in June, and that about the same time John Wolley received from a man at Thurso (only five miles distant from where the bird was killed) an egg undoubtedly that of a Little Bustard.

fore, may be said to define the limits of its range northward in winter. In the north of England and in Scotland it is known only as a rare straggler; and the same remark applies to Ireland, where less than a dozen specimens have been procured, chiefly during the winter months.

This bird is crepuscular in its habits, more active at early dawn and at twilight than in the middle of the day, when it moves but little on the fallows and flint-strewn parts of the open downs, which from their complete harmony with the colour of its plumage render it almost invisible even at a short distance. In the evening, when it becomes very clamorous (as noticed by Gilbert White), it quits the hills and comes down into the valleys, where, often in company with Peewits, it seeks its food in the turnip-fields. As many as fifty have then been seen in a flock (Gurney, *Zool.*, 1876, p. 4801). In the spring, when in pairs, they will allow a person on horseback to approach very close to them before moving. When hawking on the Wiltshire Downs in spring, I have several times ridden within a few yards of one, either squatting, or standing perfectly motionless (with a large staring yellow eye), as if trusting to escape observation from the resemblance of its plumage to the natural surroundings. In April 1876 I carried two of these birds, which were captured with very little injury by our hawks near Amesbury, to the Zoological Gardens, Regent's Park, where they lived for some months.

See an article by F. M. Ogilvie on the habits of

the Stone Curlew, with photographs of eggs *in situ*, *Zool.*, 1891, p. 401.

GOLDEN PLOVER. *Charadrius pluvialis*, Linnæus.

Pl. 19, figs. 2, 3. Length, 11 in.; bill, 1 in.; wing, 7.75 in.; tarsus, 1.5 in.

Breeds on the moors in Scotland and the north of England, and sparingly in Devon and Somerset. To the eastern and southern counties of England it is a winter visitant. Prof. Newton believes that he has seen the Golden Plover on Thetford Warren during every month in the year, but that it does not breed there. Thompson noted this bird as permanently resident in Ireland, and mentions many localities where it breeds regularly. As observed by Mr. Laidlaw in Peeblesshire, it sometimes carries its young like the Woodcock (*Zool.*, 1888, p. 301).

In August the birds which have bred here begin to flock, and quit the moors for the lower grounds, where in September and October their numbers are augmented by the arrival of innumerable flocks from the Continent. By that time they have lost all traces of the black breast which is characteristic of the breeding plumage. The axillary feathers are at all seasons white.

The Golden Plover when in good condition will weigh from 8 oz. to 10 oz.

For an article on "Plover-Catching in France," see my "Essays on Sport and Natural History," pp. 201-205.

GREY PLOVER. *Squatarola helvetica* (Linnæus). Pl. 19, figs. 11, 12, 12a. Length, 12 in.; bill, 1.25 in.; wing, 7.5 in.; tarsus, 1.6 in.

A spring and autumn migrant, a few remaining the winter. A single instance has come under my observation of a Grey Plover remaining in England throughout the summer. This was in Pagham Harbour, Sussex. The bird was seen constantly from the end of May, by which time all the migrating flocks had left, until the 29th of August following, on which day I shot it. It exhibited no trace of any former wound, and was in excellent condition. In this same harbour during several years' observation I found that the Grey Plovers arrive in spring in the first week of May, and are gone before the end of the month. In the autumn they reappear during the first week of October, when the flocks contain many young birds. In their first plumage they are spotted with yellow like the Golden Plover, but may be always distinguished by the possession of a hind-toe, and by having the axillary feathers under the wing black instead of white.

Middendorf found the Grey Plover breeding on the Taimyr Peninsula in lat. 74° N., as well as on the Boganida, in lat. 71° N. Dr. Richardson reported its breeding on Melville Peninsula, and Capt. Ross to the S.W. of Fury Point (see Appendix to Narrative of Second Voyage of Sir J. Ross). In 1875 Messrs. Seebohm and Harvie-Brown, travelling in North-eastern Europe, found it breeding on the tundras of

the Lower Petchora, and have published a graphic account of their discovery of several nests. See also Seebohm's "Siberia in Europe," 1880, chaps. xvii.-xviii. Beautifully coloured figures of the eggs of this species by C. J. Fleming are given in *The Ibis*, 1876, p. 222, and in Seebohm's latest work on the Eggs of British Birds, 1896.

The weight of a Grey Plover averages from 8 oz. to 10 oz., or a trifle more than that of a Golden Plover.

LAPWING or PEEWIT. *Vanellus cristatus*, Meyer.
Pl. 19, fig. 10. Length, 12 in.; bill, .9 in.; wing, 9 in.; tarsus, 1.5 in.

Resident and generally distributed; assembling in large flocks at the approach of winter, when it is to a certain extent migratory. It is gregarious and crepuscular, feeding much in the turnip-fields at twilight, as is the case with the Stone Curlew. Although not web-footed, it can swim well on emergency. In December 1894 a number of these birds were observed resting on the surface of Lough Derg, Co. Limerick, two miles from land, the wind blowing very hard from the east (*Field*, Dec. 29, 1894).

Great numbers are taken in nets, especially in Ireland, by professional plover-catchers. The *modus operandi* is described, with illustrations, in Sir R. P. Gallwey's "Fowler in Ireland," 1882. One taken alive at Bintree, in Norfolk, lived fourteen years in confinement (Barlow, *Naturalist*, 1853, p. 82).

The head of this bird, figured on Pl. 19, shows its

appearance when in summer plumage ; in winter the chin and throat are white. Occasionally white, or nearly white, examples are met with. The weight of this bird when in good condition is about the same as that of a Grey Plover, about 8 oz. to 10 oz.

DOTTEREL. *Eudromias morinellus* (Linnæus). Pl. 19, fig. 4. Length, 9·5 in. ; bill, ·6 in. ; wing, 6 in. ; tarsus, 1·3 in.

A spring and autumn migrant, a few pairs remaining to breed annually on the high ranges of Westmorland and Cumberland, Forfar, Kincardine, Aberdeen, Banff, and Moray. In Sutherland and Caithness there is no recent evidence of nesting. Three nests, each containing three eggs, were found in Elginshire in May and June 1853 (Thurnall, *Naturalist*, 1853, p. 254). An interesting account of its nesting-habits as observed in Cumberland is given by Heysham (*Mag. Nat. Hist.*, 1838, p. 295). He found three eggs on Whiteside, contiguous to Helvellyn, on the 29th of June, and two more on Robinson, in the vicinity of Buttermere, on July 5. A more recent account by Mr. F. Nicholson is published, with a coloured figure of the bird, in Macpherson's "Birds of Cumberland" and "The Fauna of Lakeland," while a graphic description of the discovery of a nest in Morayshire in June 1873, by Messrs. Harvie-Brown and Feilden, is given in "The Fauna of the Moray Basin," vol. ii. p. 171.

Although rare in Ireland, there is some reason to suppose that this bird may breed annually, but in

1 ($\frac{1}{2}$).2 ($\frac{1}{2}$).5 ($\frac{1}{2}$).4 ($\frac{1}{2}$).6 ($\frac{2}{3}$).8 ($\frac{2}{3}$).7 ($\frac{2}{3}$).7a ($\frac{2}{3}$).9 ($\frac{2}{3}$).

1. Raven. 2. Carrion Crow. 3. Hooded Crow. 4. 5. Rook, young & old. 6. Jackdaw. 7. 7a. Magpie. 8. Jay. 9. Nutcracker.

very limited numbers, on the high mountains in the county of Tipperary (Thompson, "Nat. Hist. Ireland," vol. ii. p. 94). In that county on the 24th June 1835, a Dotterel was shot by Mr. R. Davis on Slievenaman Mountain. In Co. Waterford several have been obtained in August and September on the mountains near Clonmel.

Although not strictly a shore bird, but an inhabitant of the fells, it is to be met with on the coast during the periods of migration in spring and autumn. It does not, however, stay long there, but goes inland almost immediately, resting on the upland pastures *en route* for its nesting haunts above referred to. Cordeaux has given a good account of the visits of small flocks or "trips" to the marshes of North Lincolnshire, where formerly they arrived with great regularity in May, but were not seen there at any other time of year (*Zool.*, 1866, p. 294). When feeding these birds have a habit of elevating their wings over the back, thus frequently betraying their position to the gunner when otherwise they might probably escape detection. When on the wing they fly closely together, and constantly repeat their wild and musical call-note, which somewhat resembles that of the Ringed Plover. It is said that the hen birds are larger and more brightly coloured than the males; but see Jenyns ("Observ. Nat. Hist.," p. 178), with whom I agree.

In May 1870, as noted in *Field*, December 17 1870, I found in the stomach of a single Dotterel no less than sixty-three wireworms and two beetles.

RINGED PLOVER. *Ægialitis hiaticula* (Linnæus).

Pl. 19, figs. 5, 6. Length, 7·75 in.; bill, ·5 in.; wing, 5·3 in.; tarsus, ·9 in.

One of the commonest of British shore birds, and next to the Dunling (*Tringa alpina*) perhaps the most numerous. The two species are frequently found in company; but while the former, as a rule, breeds on the coast, the latter goes inland to breed on the moors. The Ringed Plover, however, breeds on the warrens at Beechamwell, near Swaffham, and at Thetford, many miles from the sea, as well as on the pebbly shores of the lakes and larger rivers in Scotland; and although it may be found upon some parts of the coast throughout the year, it is migratory in spring and autumn, at which seasons I have constantly seen small flocks so near London as Kingsbury Reservoir.

To show the protective coloration of the eggs, which are usually laid (four in number) on the shingle and sandhills of the coast, I have reproduced a photograph of a nest and given some account of the habits of this bird (*Zool.*, 1891, p. 448).

An abnormal nest lined with leaves and stems of *Atriplex littoralis* has been described by Col. Feilden (*Zool.*, 1886, p. 418).

KENTISH PLOVER. *Ægialitis cantiana* (Latham).

Pl. 19, figs. 7, 8. Length, 7 in.; bill, ·5 in.; wing, 4·3 in.; tarsus, ·9 in.

A spring and autumn migrant, breeding annually on the coasts of Kent and Sussex. It has been met

with in Cornwall (Rodd), Hants (Gurney), Suffolk (Hele), Norfolk (Stevenson), and Yorkshire (Boyes, and Boynton, *Zool.*, 1869, p. 1843), but is of rare occurrence, except in the south of England. One was shot by Mr. F. C. Hingston on Plymouth Breakwater, May 7, 1861 (Rowe, "Cat. Birds of Devon," p. 33). Mr. Gatcombe, who saw it shot, identified the species.

According to Mr. Blake Knox (*Zool.*, 1866, p. 301), it has been observed in a few instances, during migration, on the Dublin coast, but it is at all times a rare visitant to Ireland. Two were observed on Achill Island (A. H. Knapp, *Field*, Aug. 27, 1881).

For remarks on the habits of this bird as observed in Kent, see Dombrain, *Zool.*, 1880, p. 138.

TURNSTONE. *Streptilas interpres* (Linnæus). Pl. 22, figs. 1, 2, 2a. Length, 9·5 in.; bill, ·9 in.; wing, 6 in.; tarsus, ·9 in.

A spring and autumn migrant, a few remaining throughout the winter. It is believed to nest in a few localities in Great Britain. In 1875 two were seen on Drift Point, at the mouth of Poole Harbour, Dorsetshire, as late as June 8, in company with Ringed Plover and Whimbrel (T. M. Pike, *Field*, June 26, 1875). Dr. Embleton,¹ of Beadnall,

¹ See his paper on Eggs, with four coloured plates, *Nat. Hist. Trans. Northumb.*, vol. vii. pp. 1-47 (1877).

Northumberland, who used to visit the Farne Islands annually in the nesting-season, wrote to me in 1865 as follows:—"The Turnstone breeds on the Farne Islands, formerly plentifully, now very few." When visiting these islands myself in 1863, I purchased from a fisherman at North Sunderland various eggs which had been taken on the island the previous year; and among them was one which, in the opinion of experienced oologists, could only have belonged to a Turnstone. On the 18th of May I shot two of these birds in full summer plumage on the mainland opposite the Farne Islands. They were figured by Gould in his "Birds of Great Britain," part x., and are now preserved in the Natural History Museum in South Kensington. Robert Gray writes: "It was suggested by the late Dr. Fleming that this species might breed in Shetland, as he had observed it there at all seasons of the year; and I find it mentioned, in a MS. note by one of the authors of the 'Fauna Orcadensis,' that it breeds in the Orkney Islands." Saxby found a nest of the Turnstone containing three eggs in Unst ("Birds of Shetland," p. 171).

Wm. Thompson was "disposed to believe that the Turnstone may breed in Ireland, though no proof can be offered." Small flocks and pairs have been observed in June on the Connemara rocks, the Arran Isles, and the Keeraghs, off Wexford.

OYSTER-CATCHER. *Hæmatopus ostralegus* (Linnæus).

Pl. 22, figs. 3, 3a. Length, 16 in.; bill, 2·5 in.; wing, 10 in.; tarsus, 1·75 in.

The Oyster-catcher, Sea-pie, or Olive, as it is variously called, may be found on some part of the coast throughout the year. It is migratory in spring and autumn, when it is sometimes met with at a considerable distance from the sea; as, for example, in Warwickshire (*Zool.*, 1895, p. 22).

On every channel island on the Tay and its tributaries, on the Spey and all the larger East Coast rivers, far up towards their sources, pairs of Oyster-catchers may be seen during the breeding season. In some places they breed commonly, as at Dalguise, between Dunkeld and Ballinluig, where it is said their eggs are gathered for sale like Plovers' eggs (*Proc. Nat. Hist. Soc. Glasg.*, 1880, p. 67). In autumn they return to the coast. I have often observed them in August and September in small flocks on the shores of Loch Linnhe in Argyllshire.

A curious variety of the Oyster-catcher, from the Faroës, was in the collection of the late Frederick Bond, and a similar one, also from the Faroës, was in the possession of Mr. Harvie-Brown. The head and neck were of a pale brown or coffee-colour, a few brown feathers on the scapulars, the rest of the plumage white; bill, legs, and feet yellow, instead of flesh-colour.

As to origin of the name, Oyster-catcher, see

Newton, *Zool.*, 1884, p. 196. The provincial name, *Olive*, applied to this bird by Albin, is still in use with the fishermen on the coast of Sussex.

Fam. SCOLOPACIDÆ.

AVOCET. *Recurvirostra avocetta*, Linnæus. Pl. 20, figs. 10, 10a. Length, 16 in.; bill, 3·25 in.; wing, 8·5 in.; bare part of tibia, 1·8 in.; tarsus, 3 in.

Formerly a regular, now an occasional summer visitant. The neighbourhood of Rye in Sussex,¹ Romney Marsh in Kent, Salthouse in Norfolk, West Fen and Fosdyke Wash in Lincolnshire are upon record as former breeding-places. To these localities may be added Winterton and Horsey in Norfolk, the neighbourhood of the Seven-Mile-House on the Bure, near Yarmouth (Stevenson, "Birds of Norfolk," ii. p. 238), and the mere-lands at Thorpe, near Aldeburgh (Hele, "Notes about Aldeburgh," p. 120); also near Orfordness (*Trans. Norf. Nat. Soc.*, vol. iii. p. 258).

The occasional appearance of this bird in spring and autumn in the marshes on the coast of Essex is noted by Mr. Christy in his volume on the birds of that county.

According to Dr. Moore, the Avocet was formerly

¹ "That it breeds here," says Markwick, "I have been an eye-witness, for I found in the marshes near Rye a young one of this species which appeared to have been just hatched, and I took it up in my hand whilst the old birds kept flying round me."—*Aves Susserienses*, 1795, p. 27.



1. 2. Great Black Woodpecker, ♂. ♀. 3. 4. Green Woodpecker, ♂. ♀. young. 6. 7. Grey Woodpecker, ♂. ♀. 8. 9. Greater Spotted Woodpecker, ♂. ♀. young. 11. Middle Spotted Woodpecker. 12. 13. Lesser Spotted Woodpecker.

often seen on the Exe, and D'Urban and Mathew in their "Birds of Devon" (pp. 312-313) give numerous instances of its appearance in that county. It has occurred several times in Cornwall (Rodd), and Mr. Mansel Pleydell has noted its appearance at Poole, in Dorsetshire. So recently as the 30th August 1897, a pair of Avocets were shot on migration so near London as Kingsbury Reservoir, and were sent for preservation to Mr. Cooper of Radnor Street, St. Luke's, where I had an opportunity of seeing them. For remarks on the nesting of the Avocet and its former breeding haunts in England, see pp. 246-247 of a paper by the present writer on the genus *Recurvirostra*, *Ibis*, 1874.

GREENSHANK. *Totanus canescens* (Gmelin). Pl. 20, fig. 5. Length, 12 in.; bill, 2 in.; wing, 7 in.; tarsus, 2.25 in.

A spring and autumn migrant, nesting regularly in some parts of Scotland, where the Gaelic name for it is *Teoch-vingh*, from its cry. As to its distribution in the nesting season, see A. G. More, *Ibis*, 1865, p. 436; Gray, "Birds of the West of Scotland," p. 301, and Harvie-Brown (*Zool.*, 1868, p. 1308), who in that year procured two nests, each containing four eggs, in Sutherlandshire. It breeds also in Caithness, as well as in Ross-shire, Inverness, Perthshire, and Argyllshire. See Buckley and Harvie-Brown, "Vertebrate Fauna of Sutherland and Caithness" (p. 223), and "Fauna of the Moray Basin," vol. ii. p. 201.

In Ireland, it is a regular visitor in autumn, remaining all through the winter and spring.

The average weight of a Greenshank is about that of a Golden Plover, *i.e.*, from 8 oz. to 10 oz., and it is almost as good a bird for the table. I have shot many out of the marsh-dykes in Sussex, Suffolk, and Norfolk, and several at different times so near London as Kingsbury Reservoir, and the river Brent.

DUSKY REDSHANK. *Totanus fuscus* (Linnæus).

Pl. 20, figs. 3, 4. Length, 12·5 in.; bill, 2·3 in.; wing, 6·75 in.; tarsus, 2·25 in.; bare part of tibia, 1·5 in.

A spring and autumn migrant to England and Scotland; a rare visitant to Ireland, where it has been procured in Co. Down, Belfast Bay (Thompson), in Co. Mayo (Warren, *Field*, Nov. 11, 1876; *Zool.*, 1887, p. 468; 1889, p. 35), in Co. Kildare, near Sallins, in Sept. 1886 (Dubl. Mus.), in Co. Dublin (Williams, *Zool.*, 1891, p. 35), and in Cork Harbour in Dec. 1898 (Barrington).

My experience of this bird is that it is commoner in England during the autumn migration than it is in spring. In autumn, when the dorsal plumage is grey and the under parts white, it looks not unlike a common Redshank, but somewhat bigger, and higher on the legs, which are then lemon-coloured. In spring, the dorsal plumage is marbled black and white, and the under parts uniformly black, which gives it a very striking appearance; the legs at that season are claret colour. I have only once met with it in this plumage in England, namely, in the month

of May, in Breydon Harbour, Norfolk ; but although I was in a punt and had a gun with me at the time, I was unable to procure it, owing to a falling tide which prevented me from getting within shot of it. In the winter plumage, I have obtained several at different times in Sussex harbours, as at Pagham, Bosham, and Chichester. Weight, 7 oz. to 8 oz.

COMMON REDSHANK. *Totanus calidris* (Linnæus).

Pl. 20, figs. 6, 7. Length, 11 in. ; bill, 1·6 in. ; wing, 6·5 in. ; tarsus, 1·75 in. ; bare part of tibia, ·9 in.

Resident and generally distributed, but migratory in spring and autumn. Birds of the year are intermediate in colour between the summer and winter plumages of their parents. A *white* one was shot at Shoreham in the autumn of 1875.

The Redshank breeds commonly in parts of Norfolk, Suffolk, Essex, Kent, and East Sussex ; and Commander Gervase Mathew, R.N., noted several pairs nesting in Chatham Dockyard, on a piece of waste ground between the large basins and the sea-wall (*Zool.*, 1886, p. 332). Some breed usually in the grassy meadows on the banks of the Medway between Chatham and Sheerness, and I have found their nests in Rye marshes as well as in the old bed of Pagham Harbour, now, alas ! drained and reclaimed. See my article on " Pagham Harbour, Past and Present," *Field*, July 2 and 16, 1887.

In Yorkshire the Redshank used to breed on Reccall Common near Selby, on Strensall Common near Beverley, Pilmoor, Thorne Waste, and on Mal-

ham Tarn Moss. In 1886 several pairs nested in a marshy field near Harrogate, to which they returned on April 10, 1887. A few breed in the Winster Valley, Lancashire, and on Walney Island; also in Cumberland; and in Northamptonshire on Lord Lilford's ground near Oundle (*Zool.*, 1896, p. 53).

In Scotland and Ireland the Redshank breeds in several counties, and is common on the coast in autumn and winter. Weight 6 oz.

GREEN SANDPIPER. *Totanus ochropus* (Linnæus).

Pl. 20, fig. 8. Length, 9·5 in.; bill, 1·2 in.; wing, 5·5 in.; tarsus, 1·25 in.; bare part of tibia, 0·7 in.

A spring and autumn migrant; a few sometimes remain the winter. The Rev. Richard Lubbock, author of the "Fauna of Norfolk," in a letter to Yarrell dated Sept. 14, 1840, wrote: "I am nearly certain that they remain here all the year, with the exception of that period in spring and early summer in which they withdraw to hatch and rear their young. I have shot them in extremity of frost, and have seen one here and there during the snipe-shooting in March, but the 11th of April is the latest time in spring in which I observed them." In Middlesex I have seen and shot Green Sandpipers much later in spring and earlier in autumn than noted by Lubbock in Norfolk. Looking through my notebooks, I find the following entries of meeting with this bird at Kingsbury Reservoir:—

1864, April 24, 29, July 20, August 6. 1865, May 25.
1868, June 25, a most unusual date, when the bird ought

to have been nesting, and August 6. 1869, July 14 and October 6. 1870, April 21 and July 12. 1872, July 27 and August 10. 1873, August 1 and December 8. 1874, April 26, August 28, October 26. 1876, August 1 and November 24. 1877, August 10. 1878, November 9. Latest stay in spring, May 25; earliest return, July 12.

For a more detailed account of its habits see "The Birds of Middlesex" (pp. 172-177).

The Green Sandpiper is reported to have nested in Yorkshire, Mr. Roberts, of the Museum at Scarborough, having received specimens several times from the neighbourhood of Hunmanby, in all cases shot in June. The keeper there said they breed in old crows' nests; he had seen them come off from the nests (Stevenson's "Birds of Norfolk," vol. ii. p. 226, note). This is quite in accordance with what has been observed of this species in Sweden; and it is now a well-known fact that, instead of nesting on the ground like other Sandpipers, it makes use of the deserted nest of some other bird, and frequently lays its eggs at a considerable height from the ground. An excellent account of the nidification of this bird, by Professor Newton, will be found in the *Proceedings of the Zoological Society* for 1863, pp. 529-532 (reprinted in *The Zoologist* for 1864, pp. 9115-9118, and in the *Ann. and Mag. Nat. Hist.*, 3rd ser., xiv. pp. 221-224).

The Green Sandpiper is reported to have bred on the Gartmore estate, near Aberfoyl, Perthshire. A very circumstantial account of his observation of the bird has been published by Mr. Samuel Yuille,

who subsequently became head-keeper on the Shotley Hall estate, Durham (*Field*, Aug. 21, 1875).

In Ireland the Green Sandpiper has been met with in several different counties, but is regarded as a rare visitor, occurring chiefly in autumn. In Sept. 1877 I received one which had been shot near Cork, and on Feb. 26, 1890, another which had been shot two days previously in co. Tyrone. Weight, $3\frac{1}{2}$ oz.

WOOD SANDPIPER. *Totanus glareola* (Linnæus). Pl. 20, fig. 9. Length, 9 in.; bill, 1 in.; wing, 5 in.; tarsus, 1.4 in.; bare part of tibia, 0.8 in.

A spring and autumn migrant, in exceptional cases remaining to breed. A nestling bird was found at Beechamwell, Norfolk, by the late Mr. Scales, of Bustard celebrity (Gurney and Fisher, *Zool.*, 1846, p. 1324, and figure); and in June 1853 a nest and eggs were discovered by the late John Hancock on Prestwick Carr, Northumberland (Hewitson's "Eggs of British Birds," 3rd edition, vol. ii. p. 332). A third nest of this Sandpiper was found in a birch plantation by a small loch-side in Elginshire, May 23, 1853, and the eggs were identified by Mr. Bond, who received two of them (Thurnall, *Naturalist*, 1853, p. 254). See also W. Evans, *Ann. Scot. Nat. Hist.*, 1899, p. 14.

The Wood Sandpiper is apparently a rare bird in Scotland. Robert Gray had only seen one from the West coast. This was shot near Bowling, on the Clyde, in the autumn of 1853. The late Mr. Sinclair of Wick had one which was shot in his

neighbourhood. One procured at Heriot, Midlothian, Aug. 14, 1856, was exhibited at a meeting of the Royal Physical Society, Edinburgh. Mr. W. C. Angus received one which was killed on the river Yohan at Auchmacoy, Jan. 17, 1863 (an unusual time of year at which to meet with it), and shot one himself at Donmouth, Aberdeen, on Sept. 1, 1866. Another Aberdeenshire specimen was obtained by Mr. G. Lees on July 8, 1867.

Since the first edition of this Handbook was published, the occurrence of the Wood Sandpiper in Ireland, where it was then unknown, has been placed beyond doubt. One was shot at Calary Bog, Co. Wicklow, on Aug. 23, 1885 (More, *Zool.*, 1885, p. 438), and two others have since been obtained at the same place. In Sept. 1898 a fourth was shot at Lough Cullin, Co. Mayo (*Ibis*, 1899, p. 128), and on Aug. 25, 1899, a fifth near Tramore Bay, Co. Waterford (*Irish Nat.*, 1899, p. 231).

From its general resemblance to the Green Sandpiper this bird is probably often mistaken for it, and is perhaps not so rare as is generally supposed. I have seen and shot several on the river Brent and at Kingsbury Reservoir, Middlesex; in the salt marshes between Siddlesham and Selsea, Sussex; in the marshes adjoining the river Bure, Norfolk; and in the marshes around Thorpe and Aldeburgh. It differs from the Green Sandpiper in having a shorter bill and longer legs; the axillary plumes white with faint dusky bars, instead of greyish black with narrow angular white bars; all

the feathers in the tail barred, and the shaft of the first primary white. In the Green Sandpiper the bases of the tail feathers are white, and all the quills are dusky. The legs and toes of the Wood Sandpiper are yellowish clay-colour; in the Green Sandpiper they are greyish-green.

Expanse of wing, 14 in.; weight, $2\frac{1}{2}$ oz.

RUFF and REEVE. *Machetes pugnax* (Linnæus). Pl. 23, figs. 5, 6, 7, 8, 8a. Length, ♂ 12 in., ♀ 9 in.; bill, 1.25; wing, ♂ 7.25 in., ♀ 6 in.; tarsus, ♂ 1.5, ♀ 1.25.

A spring and autumn migrant. Formerly nested annually in the eastern counties of England; now a few pairs only remain to breed in favourable localities, where they are professedly protected.

In 1869 Ruffs and Reeves were breeding in Lincolnshire in limited numbers, and twenty years later were observed on their spring migration in the marshes lying to the north of that county (Cordeaux, *Zool.*, 1884, p. 466; 1890, p. 204).

In 1870 Stevenson ("Birds of Norfolk," ii. p. 261) thought Hickling Broad was the only place in Norfolk where they still continued to breed. In 1889 Mr. J. H. Gurney published a description of two nests with eggs found on June 28 of that year (*Zool.*, 1889, p. 336), and Mr. Marchant has since reported a nest found near Hoveton Broad in 1897. As to the former breeding of the Ruff at Martin Mere, Lancashire, see Howard, *Zool.*, 1884, p. 446.

The name "Ruff" has been obviously bestowed on account of the frill which is assumed by the

male bird in the breeding season ; but I have nowhere found any explanation of the name "Reeve." On showing one which I had just shot to a Norfolk fenman some years ago, inquiring what bird he took it to be, he replied, "A Dick-reeve," *i.e.* dyke-reeve. Now amongst the officers of the shire who had to render their accounts periodically at a Court Baron were the "shire-reeve" (modern "sheriff") and the "dyke-reeve," whose business it was to superintend the repairs of the dykes to prevent floods ; and it appears not unlikely that as this bird was constantly to be found about the marsh dykes, it came to be known as the "dick-reeve." See an article "On the title of Reeve," *Journ. Brit. Archæol. Assoc.*, vol. xxviii. p. 35.

These birds were formerly held in great esteem for the table, as appears by the frequent mention of them in old "Household Books." See Bewick's description of the nets used for taking them, and the price paid for them in 1794. Montagu also, in his "Ornithological Dictionary," has some interesting remarks on the "combat" of Ruffs in the pairing season. Five-and-twenty years ago I constantly saw Ruffs and Reeves exposed for sale by the London poulterers in April and May. Now they are very seldom seen, owing, it is believed, to the enforcement of the law for the protection of birds in the breeding season both in this country and in Holland, whence they were imported.

The weight of a Ruff is 6 oz. ; of a Reeve, 4 oz.

COMMON SANDPIPER. *Tringoides hypoleucus* (Linn.).

Pl. 20, figs. 2, 2a. Length, 7·5 in.; bill, 1 in.; wing, 4·25 in.; tarsus, 0·9 in.

A summer visitant breeding in the north of England, Wales, Scotland, and Ireland, in similar haunts to those affected by the Dipper. More rarely the nest has been found in some of the south-western counties of England.

It seldom remains here throughout the winter, and the following instances recorded by Mr. W. E. Beckwith (*Zool.*, 1884, p. 73) are worth mentioning. One killed on the Severn, near Leighton, on Nov. 27, 1879; one seen near Leighton on Dec. 19, 1882, and frequently afterwards up to the end of March; one shot near Cound on Dec. 26, 1882; one seen near Leighton on Dec. 8, 1883; and one (probably the same bird) shot there on January 21, 1884. One was shot at Glandore, Co. Cork, on Jan. 15, 1884 (*Zool.*, 1884, p. 115), by Mr. C. Donovan, who obligingly forwarded the bird for my inspection.

KNOT. *Tringa canutus*, Linnæus. Pl. 21, figs. 1, 2.

Length, 10 in.; bill, 1·2 in.; wing, 6·5 in.; tarsus, 1·1 in.

A spring and autumn migrant, some remaining in flocks upon the coast throughout the winter.

The origin of the name "Knot" is uncertain. Camden calls it the bird of Canute, because supposed to fly here out of Denmark (*Britannia*, ed.

1607, p. 408); but this is a mere surmise. Possibly the name "Knot" may be derived from its habit of sitting "bunched up," as the fowlers term it. While waiting on the beach for the ebb-tide to leave the mud-flats on which they feed, these birds may be seen sitting knotted up, as it were, with their heads buried in the feathers of their backs. But see Newton, *Dict. Birds*, p. 498.

The Knot, like the Lapwing, was formerly held in great esteem for the table, and large numbers were taken in nets, kept in mews and fattened, as appears by old "Household Books." A MS. in the Sloane Coll. Brit. Mus., 1592, 8 Cat. 633, describes "The maner of kepyng of Knotts after Sir William Askew and my Lady, given to my Lord Darcy, 25 Hen. VIII."

In summer, the Knot, like the Bar-tailed Godwit and Curlew Sandpiper, has the under parts of a bright bay colour, and the back prettily variegated with black and brown; in winter the under parts are white, the dorsal plumage grey. The young of the year have buff-coloured breasts.

A white Knot shot at Maldon, Essex, was in the collection of the late F. Bond (*Zool.*, 1883, p. 377).

Saxby had little doubt that this species occasionally breeds in the northern parts of Shetland, for he had observed and shot the birds in perfect summer plumage in June, while later in the year he met with the young so weak upon the wing that they rather fluttered than flew. Eggs resembling those of the Reeve, but not so sharply pointed, were once

sent to him from a locality where he had long suspected that the Knot might breed. But see Evans and Buckley, "Fauna of the Shetland Islands," 1899, p. 169.

During the British Polar Expedition of 1876, Col. Feilden, naturalist to H.M.S. "Alert," obtained a male Knot and three nestlings (now preserved in the British Museum), near a small lake on Grinnell Land, in lat. $82^{\circ} 33' N.$, and Mr. Chichester Hart, naturalist to H.M.S. "Discovery," captured a brood of four and another of three in lat. $81^{\circ} 44'$. For further details see *Zool.*, 1880, p. 205.

The weight of an adult Knot is about 6 oz.

CURLEW SANDPIPER. *Tringa subarquata* (Güldenst.).

Pl. 21, figs. 5, 6. Length, 8.25 in.; bill, 1.5; wing, 5 in.; tarsus, 1.2 in.

A spring and autumn migrant, sometimes in considerable flocks. In the spring plumage the under parts are rufous, as in the Knot and Godwits; in the autumn and winter the under parts are white. It then resembles the Dunling, from which it may be distinguished by its decurved bill and white rump. The discovery of a nest "in a tract of sedgy bog round the Loch of Spynie, near Elgin, on the 8th June 1853," has been chronicled by Mr. Robert Gray in his "Birds of the West of Scotland" (p. 318), but this observation probably has reference to a nest of the Dunling (*q.v.*), and is not quoted in the more recent work of Mr. Harvie-Brown on the Fauna of the Moray Basin.

Mr. Popham, while in Siberia, took a nest of the Curlew Sandpiper containing four eggs, and shot the hen bird, on an island at the mouth of the river Yenesei, in July 1897 (*P. Z. S.*, 1897, p. 890, pl. li.; *Ibis*, 1898, p. 142). Weight, $2\frac{1}{2}$ oz.

PURPLE SANDPIPER. *Tringa maritima*, Gmelin.¹
Pl. 21, figs. 3, 4. Length, 8·5 in.; bill, 1·4 in.; wing, 5·3 in.; tarsus, 1 in.

A regular winter visitant, rarely seen between April and September, although it is supposed to breed within the limits of the British Islands, as, for example, in Shetland (*cf.* Saxby, p. 214). Hitherto, however, the nest has not been discovered, though young birds hardly able to fly have been found in the Farne Islands, and I have observed the old ones on the opposite mainland near North Sunderland. One which I shot there so late as the middle of May is preserved in the British Museum collection.

Messrs. Harvie-Brown and Feilden found the Purple Sandpiper in the Outer Hebrides on the 27th of May, and procured several specimens. They were not, however, in full summer plumage. The weight of the bird I shot was 4 oz.

¹ It is clear that the specific name *striata*, Linn., adopted by the *Ibis* Committee in their List of British Birds, and by Mr. Saunders in his "Manual," is not applicable to the Purple Sandpiper, but to the Red-shank; for the words of Linnæus are, "*rectricibus albis fusco-fasciatis, remigibus plurimis albis; uropygium album.*" Evidently, from the barred tail, a *Totanus*, and not a *Tringa*. I accordingly retain the name *maritima* adopted in the earlier edition of this Handbook.

DUNLING. *Tringa alpina*, Linnæus. Pl. 21, figs. 10, 11. Length, 8 in.; bill, 1·3 to 1·5 in.; wing, 4·5 in.; tarsus, 1 in.

In altering the usually accepted mode of spelling the English name of this bird, I have ventured to restore what I conceive to be the older, and therefore preferable, form of the word. "Dunling," the little dun thing, a diminutive akin to grayling, gravelling (a young salmon), groundling (an old name for the gudgeon), brandling (a small red worm), titling, reedling, sanderling, devilling (a local name for the swift), duckling, and gosling. My justification for the proposed change is to be found in the entries relating to this Sandpiper in the Durham Household Book (the accounts of the Bursar of the Monastery of Durham), 1530–1534, the price paid for them at that date being at the rate of 4d. a dozen (*Zool.*, 1881, p. 444).

The Dunling, variously known as Stint, Purre, Ox-bird, and Plover's page, may be found on some parts of our coast all the year round, but in spring and autumn a regular migration takes place to and from its breeding haunts, which are usually at some elevation on moorland wastes, often at a considerable distance from the sea.

This bird breeds annually in Scotland and the Hebrides, as also on the Northumbrian moors, whence I have procured the eggs. It used formerly to nest at Martin Mere, in Lancashire (*Mag. Nat. Hist.*, vol. vii. p. 599), and in Cheshire, where,

according to J. F. Brockholes, a few used to breed in suitable parts of Wirral. In the spring of 1871 he received eleven eggs which were taken on the Dee marshes near Puddington and Shotwick (*Proc. Chester Soc. Nat. Sci.*, 1874, p. 12).

In the south-west of England the nest has been found on the Bodmin moors in Cornwall (Rodd, *Zool.*, 1868, p. 1319), and on Dartmoor in Devonshire (Moore, *Mag. Nat. Hist.*, 1837, p. 322), though not of late years.

In Wales the Dunling breeds in Cardiganshire and Merionethshire (*Zool.*, 1893, p. 269, and 1895, p. 275), probably also in Pembrokeshire (Tracy, *Zool.*, 1851, p. 3049, and Murray Mathew, "Birds of Pembrokeshire," 1894, p. 94).

In Ireland, nests and eggs have been found in Wicklow, Mayo, Westmeath, and Donegal, where, according to Mr. Ussher, the bird is common in the breeding season. It then has a black breast.

As to the smaller race or variety of this species which is sometimes met with on our coasts in autumn, see Cordeaux, *Trans. Norf. Nat. Soc.*, vol. ii. p. 562, and Newton, *Dict. Birds*, p. 172.

LITTLE STINT. *Tringa minuta*, Leisler. Pl. 21, figs. 7, 8, 8a. Length, 6 in.; bill, 0·8 in.; wing, 3·2 in.; tarsus, 0·9 in.

A spring and autumn migrant. A few instances have come under my notice in which this bird has remained in England so late as the second week in

June, but, as a rule, it departs for its northern breeding haunts long before that date.

It is sparingly distributed on the eastern coasts of Scotland, but has not been met with on the western shores. It appears in Ireland as a regular autumnal visitant, but in limited numbers.

I have often met with this little bird in spring and autumn at Pagham Harbour, Sussex; at Kingsbury Reservoir, Middlesex; Breydon Harbour, Norfolk; and Aldeburgh, Suffolk; and at the last-named place I once shot a Little Stint and a Temminck's Stint out of the same flock in September.

The nest of the Little Stint was first discovered by Middendorf on the Taimyr river, in Asiatic Siberia, in 1872; but Messrs. Seebohm and Harvie-Brown were the first to take the eggs in Europe, in $68\frac{1}{2}^{\circ}$ N. lat., near the mouth of the Petchora river, in July 1875. See the account of their discovery, with coloured figures of the eggs, *Ibis*, 1876, p. 294. Since then, others have been obtained near Archangel, in the Kola Peninsula, in Northern Norway, and in Novaya Zemlya by Messrs. Pearson and Feilden, who in the account of their journey "Beyond Petsora Eastward" (1899), have given coloured figures of the eggs with photographs of nest and eggs, and sitting bird.

TEMMINCK'S STINT. *Tringa temminckii*, Leisler.

Pl. 21, fig. 9. Length, 5·75; bill, 0·6; wing, 3·75; tarsus, 0·6 in.

A spring and autumn migrant, but much rarer than the last named. In Scotland it has been met



1. 2. Cuckoo, old, young & foot 3. 3a. Wren. 4. 4a. Wryneck. 5. 5a. Martin. 6. Sand Martin. 7. 7a. Swift. 8. 8a. Nighthawk. 9. 9a. Wren. 10. 10a. Creeper. 11. 11a. Dipper.

with in Caithness (R. Gray) and in Banffshire ("Fauna of the Moray Basin," ii. p. 195). In Ireland one examined by Mr. Ussher was obtained many years ago near Tralee. Wolley has given a most pleasing account of its nesting haunts north of the Gulf of Bothnia, and Messrs. Seebohm and Harvie-Brown found it much commoner than the Little Stint on the same breeding-ground at the mouth of the Petchora river (*Ibis*, 1876, p. 308). This graceful little bird, our least British Sandpiper, is sometimes confounded with the Little Stint (*Tringa minuta*), but may be distinguished by the white shaft of the first primary, the white outer tail feathers, and the light-coloured legs, as pointed out in my "Birds of Middlesex." On September 4, 1869, I shot one of these little Sandpipers at Kingsbury Reservoir, at which sheet of water on that day at 6 A.M. I counted seven different species of waders, namely, Heron, Greenshank, Green Sandpiper, Common Sandpiper, Ringed Plover, Dunling, and Temminck's Stint. At the same place on August 29, 1872, I found and shot another, after observing its actions for some time. In mode of flight and general appearance it resembles a miniature Common Sandpiper. The Little Stint, which I have observed chiefly on the coasts of Sussex and Suffolk, is more like a miniature Dunling.

SANDERLING. *Calidris arenaria* (Linnæus). Pl. 20, figs. 1, 1a. Length, 7 in.; bill, 0·5 in.; wing, 4·3 in.; tarsus, 0·9 in.

A spring and autumn migrant, a few remaining throughout the winter. On the west coast of Scotland, as well as in Ireland, it is said to be common in

autumn. There is no evidence that the Sanderling has ever nested in the British Islands. Eggs from the barren grounds of North America, near the Anderson River (found by Macfarlane), and from Sabine Island (brought home by the German Polar Expedition under Captain Koldewy), have been figured and described by Prof. Newton (*Proc. Zool. Soc.*, 1871, p. 56, pl. 4, and p. 546). Colonel Feilden, also, when naturalist on board H.M.S. "Alert," in June 1876, found a nest of the Sanderling, containing two eggs, in Smith's Sound, lat. $82^{\circ} 83'$. These are figured in the appendix to Sir George Nares's narrative of that expedition. This bird may be distinguished at all times from the Dunling by its short straight bill and by the absence of a hind-toe. (See Pl. 20, fig. 1a.)

GREY PHALAROPE. *Phalaridopus fulicarius* (Linnæus). Pl. 23, figs. 9, 10, 10a. Length, 8 in.; bill, 1 in.; wing, 5 in.; tarsus, 0·8 in.

This bird in summer plumage is the *Tringa fulicaria* of Linnæus, and in its winter dress his *Tringa lobata* (*Syst. Nat.*, i. p. 249). As to the proper mode of spelling the name of the genus in which it is now placed by common consent, it seems clear that if we change *Podiceps* for *Podicipes* (q.v.), to be consistent we must have *Phalaridopus*, from *φαλαρίς*-*ιδος*, and not *Phalaropus* (see Murdoch, *Bull. Nutt. Orn. Club*, iii. p. 150; Newton, "Dict. Birds," p. 711).

The Grey Phalarope is an annual visitor in autumn; in some years unusually numerous, as,

for example, in 1866 (see Mr. Gurney's pamphlet giving a summary of the occurrences in that year), 1869, 1889, and in 1891, when a great number were reported from Sussex, Hants, and Dorset. No instance of its occurring in England in the red plumage peculiar to the breeding season is known to me, although occasionally specimens obtained in autumn have a few red feathers showing through the winter dress. An egg obtained in Iceland has been figured by Prof. Newton (*Proc. Zool. Soc.*, 1867, p. 165, pl. xv.), and others have been since procured in Spitzbergen and Novaya Zemlya.

RED-NECKED PHALAROPE. *Phalaridopus hyperboreus* (Linnæus). Length, 7 in.; bill, 0·8 in.; wing, 4·5 in.; tarsus, 0·8 in.

Breeds in Perthshire, Inverness, Sutherland, the Hebrides, and Shetland;¹ formerly also in Orkney. It is an occasional autumn and winter visitant to England, but very rare in Ireland, where it was unknown until Nov. 1891, when one was shot at Loughgilly, Co. Armagh (A. G. More, *Irish Nat.*, 1892, p. 4, and *Zool.*, 1892, p. 28).

A small flock in S.W. Sutherland in autumn (*Zool.*, 1880, p. 506). One in Anglesea, Oct. 1893; another near St. Leonards, Oct. 1895. The extreme lightness of this little bird is remarkable, its weight being only 1 oz. (*Zool.*, 1895, p. 449).

Wilson's Phalarope has been reported to have been found at Sutton Ambian, near Market Bosworth (*Proc. Zool. Soc.*, 1886, p. 297, and *Zool.*, 1886,

¹ The nest and eggs are figured by Pearson, p. 80.

p. 256), but there seems to have been some mistake (Browne, "Birds of Leicestershire," p. 151).

WOODCOCK. *Scolopax rusticula*, Linnæus. Pl. 22, figs. 4, 4a. Length, 14·5 in.; bill, 2·75 in.; wing, 8 in.; tarsus, 1·5 in.

A regular winter visitant, but many pairs annually remain to nest in favourable localities. See T. J. Monk's statistics of the breeding of the Woodcock in East Sussex (*Field*, Feb. 25, 1871). In seven districts, comprising twenty-one parishes, it was estimated that there were annually from 150 to 200 nests of this bird. See also my notes on its nesting in the south and west of England (*Field*, June 10, 1871), on carrying its young (*Zool.*, 1879, pp. 433-440, illustrated by Joseph Wolf), and covering itself with dead leaves to favour its concealment (*Field*, Feb. 29, 1896).

In Ireland, Mr. Ussher states that this bird breeds in the woodlands of every county, having greatly increased in such localities in summer. The winter immigration, lasting from October until March, is at its height in November and December.

The noticeable variation in the colour of the first primary is not indicative of sex, as some suppose, but of age, the young birds having the outer web of this feather variegated, the old ones plain.

Albino and pied varieties have been frequently met with. See my article on "White Woodcocks," *Field*, Nov. 20, 1897, and a note on Lord Gainsborough's White Woodcock, *Zool.*, 1869, p. 1645.

Woodcocks have been killed weighing as much as

16 oz., but the average weight is 12 oz. The heaviest one on record was killed at Ramsay, Isle of Man. It was very carefully weighed by Mr. D. H. Greenwood of Glendaff, Ramsay, and scaled $17\frac{1}{2}$ oz.

For notable "bags" of Woodcock, and further details concerning weight, see Harvie-Brown and Buckley, "Fauna of Argyll," pp. 172-173; Payne Gallwey, "Fowler in Ireland," pp. 227-229; and the article on Woodcock in the "Encyclopædia of Sport," 1898.

An unusual instance of a Woodcock "towering" is reported, *Field*, Feb. 19, 1898.

Woodcocks have been occasionally kept for some time in captivity (*Zool.*, 1884, p. 150).

GREAT SNIPE. *Gallinago major* (Gmelin). Pl. 22, fig. 5. Length, 11 in.; bill, 2.5 in.; wing, 5.5 in.; tarsus, 1.35 in.

The Great or "Solitary" Snipe visits this country regularly every autumn from Scandinavia, and always earlier than the Common Snipe. Instances of its occurrence in spring are rare. It appears to seek drier situations than does the Common Snipe:—*e.g.* one shot by the Earl of Haddington *in a dry grass field* near Mellerstain, Berwickshire, in the autumn of 1865 (Turnbull, "Birds of East Lothian," p. 43); two *on high ground*, Malham, Yorkshire, Sept. 6, 1862 (Christy Horsfall, *Zool.*, 1862, p. 8196); one *on a stubble* at Stewarton, Ayrshire, Sept. 15, 1868 (R. Gray, "Birds of Scotland," p. 311); one *in a piece of potatoes on dry sand*, near Milton Pewsey, Wilts, Sept. 23, 1868 (*Field*, Oct. 3, 1868); one on a

dry bean stubble at Thorpe, Northants (*Zool.*, 1880, p. 444); one in *a field of clover* at Thaxted, Essex, Sept. 3, 1896 (*Field*, Sept. 12, 1896). For additional occurrences see *Zool.*, 1895, p. 383, where the respective weights of a dozen specimens from various parts of the country are noted. The average weight is about $7\frac{1}{2}$ to 8 oz., but I have notes of three that weighed 10 oz. each, and one shot at Pickering in Yorkshire, $10\frac{1}{4}$ oz.

The Great Snipe differs from the Common Snipe not merely by its superior size and weight, but in having the underparts barred instead of white, with sixteen tail feathers instead of fourteen; the distal half of the outermost one is pure white instead of being barred as in the Common Snipe. A Great Snipe, shot at Camelford, Cornwall, in November 1868, and examined by Mr. E. H. Rodd of Penzance, had eighteen instead of sixteen feathers in the tail (*Zool.*, 1868, p. 1482).

There is a record of this species having nested near Wroxham (*Zool.*, 1851, p. 3175), but the late Mr. Stevenson, who inquired carefully into the circumstances and saw one of the eggs, concluded that the nest was that of a Common Snipe ("Birds of Norfolk," ii. p. 300).

This is a rare visitor to Ireland in autumn. One was shot at Ballycroy, Co. Mayo, Oct. 13, 1893 (*Zool.*, 1893, p. 434); one near Clonakilty, Co. Cork, Nov. 17, 1879 (*Field*, Nov. 22, 1879); another, Co. Cork, Dec. 1883 (*Zool.*, 1884, p. 149); and one Co. Galway (*Zool.*, 1888, p. 33).

In Scotland it is regarded as a rare autumnal

visitant. R. Gray has noted several instances of its occurrence both in the eastern and western counties, and Mr. R. Service of Dumfries informed me that one was shot at Teregles in his county, Oct. 2, 1896, weighing $7\frac{1}{2}$ oz.

COMMON SNIPE. *Gallinago media*, Leach. Pl. 22, figs. 6, 6a. Length, 10·5 in.; bill, 2·75 in.; wing, 5·25 in.; tarsus, 1·25 in.

A regular winter visitant, but many annually remain to breed in suitable localities. As to the large russet variety, for which Gould suggested the name *G. russata*, see Stevenson, "Birds of Norfolk," vol. ii. p. 331; Rodd, *Zool.*, 1855, p. 4704; Gatcombe, *Zool.*, 1862, p. 7938; Blake Knox, *Zool.*, 1866, p. 302; Brooking Rowe, *Zool.*, 1866, p. 97; and Rodd, *Zool.*, 1880, p. 23.

A remarkable paper on the "drumming" of the Snipe by Herr Meves, translated from the Swedish by Wolley, will be found in the *Proc. Zool. Soc.* for 1858, p. 199. In this paper the author attributes the peculiar sound known as humming, drumming, and bleating, to the vibration of the outer tail feathers; but from repeated observation I am persuaded that it is caused by the vibration of the primaries, and in this opinion I am supported by Macgillivray, Jardine, Selby, Saxby, John Hancock, and Abel Chapman. (See "Essays on Sport and Nat. Hist.," 1883, pp. 285-294, and Stevenson, *Trans. Norf. Nat. Soc.*, iv. p. 486, 1889.)

Stevenson states (vol. ii. p. 318) that the first

flights of Snipe from the north of Europe arrive about the middle or end of August; but I suspect that the majority of those first observed in Norfolk and other English counties about that season are the home-bred Snipe that have then left their breeding haunts. So far as my experience goes, in the south of England the foreign Snipe do not come in until the first week of November.

The average weight of a Common Snipe is from 4 to $4\frac{1}{2}$ oz., and perhaps one in a hundred will pull down the scale at 5 oz. Anything above this must be considered an unusual weight. On Dec. 14, 1891, I received three Snipes from Tingwall, Lerwick, which weighed respectively $5\frac{3}{4}$ oz., $6\frac{1}{4}$ oz., and $6\frac{3}{4}$ oz. I weighed them myself, and they had probably lost something of their original weight, having been shot a few days previously. For good "bags" see the "Encyclopædia of Sport," 1898.

With regard to the so-called SABINE'S SNIPE, when Vigors, in Aug. 1825, received from Queen's Co., Ireland, a very dark, almost black, specimen of a Snipe, he took it to be an undescribed species, and named it after a distinguished contemporary (*Trans. Linn. Soc.*, xiv. p. 557). At irregular intervals other specimens were subsequently obtained, and although in none of these did the measurements differ appreciably from those of the Common Snipe, the singular coloration seemed to justify its separation from that species. In Dec. 1870 there were at least five-and-twenty examples on record (*Field*, Dec. 10, 1870), and since that date the number of recorded speci-

mens has been more than doubled. In the *Irish Naturalist*, Jan. 1895, Mr. Barrett Hamilton, reviewing the records, remarked that out of fifty-five examples of Sabine's Snipe existing in collections, thirty-one were obtained in Ireland, twenty-two in England, one in Scotland, and one in France. This bird is now generally regarded as merely a melanistic form of the Common Snipe.

A *white* Snipe was shot near Morpeth in Sept. 1888 (*Zool.*, 1889, p. 35). F. Bond had another.

JACK SNIPE. *Gallinago gallinula* (Linnæus). Pl. **22**, fig. 7. Length, 7·5 in.; bill, 1·5 in.; wing, 4·25 in.; tarsus, 0·75 in.

A regular winter visitant from Scandinavia, arriving usually in the first week of October. Cases are on record in which this bird has been seen in England during the summer months, but there is no satisfactory evidence of its having nested here. John Wolley has given an excellent account of its breeding haunts, and of several nests with eggs found by him in the great marsh of Muonio-niska in Lapland (Hewitson, 3rd ed., ii. p. 357). Wheelwright also has some interesting remarks on the subject (*Field*, Oct. 28, 1865).

A black variety, comparable to the melanistic form of the Common Snipe, shot at Staines, was recorded by the late Frederick Bond (*Zool.*, 1862).

The Jack Snipe has only twelve feathers in the tail, instead of fourteen as in the Common Snipe. Its weight is $2\frac{1}{4}$ to $2\frac{1}{2}$ oz.

I have known two instances in which Jack Snipe shot at and only slightly winged have been carried home alive and kept for some time in captivity. Of one of these I have given a detailed account ("Birds of Middlesex," p. 193).

BAR-TAILED GODWIT. *Limosa lapponica* (Linnæus).

Pl. 23, figs. 3, 4. Length, 16 in. ; bill, 3·25 in. ; wing, 8·5 in. ; tarsus, 2 in. ; bare part of tibia, 0·75 in.

A spring and autumn migrant, many remaining throughout the winter, and much commoner than the following species ; but although so numerous at the period of its migration, no instance is known of its having nested in the British Islands. It is to be found during the breeding season on the Siberian tundras from the Yenisei valley westward to the marshes of Finland and Lapland. The Black-tailed Godwit, on the contrary, although far more rarely met with in England at the present time, used formerly to breed in the fens and marshes of our eastern counties.

To give some idea of the occasional abundance of the Bar-tailed Godwit, it may be noted that Mr. T. M. Pike, as he himself informed me, has seen thousands of these birds together in Morayshire, and a professional gunner there once killed 115 at one shot. Mr. Abel Chapman has observed that "thousands of Bar-tailed Godwits haunt the coast of Northumberland throughout the winter," an assertion which Sir R. Payne Gallwey has disputed, suggesting that he must have mistaken Knots for

Godwits ("Letters to Young Shooters," 3rd series, p. 388). Not only is this very unlikely, having regard to Mr. Chapman's long experience as a wild-fowl shooter, and his intimate acquaintance with shore birds, but his observation has been confirmed by Mr. Cordeaux (*Field*, Feb. 20, 1897).

In summer this bird has the dorsal plumage beautifully variegated with black and brown and the under parts bright bay; in the winter the back is nearly uniformly grey and the under parts white. The young birds of the year have buff breasts, and, generally speaking, a plumage intermediate in colour between that of the summer and winter plumage of the adults. I have shot scores of them in all phases of plumage in the Sussex harbours and on the coasts of Essex and Norfolk, several of which are preserved in my collection of wading birds in the British Museum. The females are larger than the males.

The length of bill varies according to age and sex. The weight also varies from 10 to 12 oz.

BLACK-TAILED GODWIT. *Limosa ægocephala* (Linnaeus). Pl. 23, figs, 1, 2. Length 17 in.; bill, 4·5 in.; wing, 8·5 in.; tarsus, 3 in.; bare part of tibia, 1·75 in.

A spring and autumn migrant. Extremely rare in Scotland, and in Ireland an occasional visitant in autumn. Formerly nested annually in the fens of Norfolk, Cambridge, Huntingdon, and Lincoln. It had ceased to breed in Lincolnshire in Montagu's time (1813), and according to Stevenson became extinct as a breeding species in Norfolk some time

between 1829 and 1835; although during the succeeding twenty years a pair or two occasionally returned to their old haunts in the spring. The last nest heard of was one containing three eggs, taken at Reedham, Norfolk, in 1857. These eggs were sold at Stevens's, March 23, 1858, and two of them are in the collection of Professor Newton.

Although I have occasionally met with old and young birds in September in the Sussex harbours, and on Sept. 5, 1873, shot one in Breydon Marshes, Norfolk, I have only once met with this species on the spring migration. On April 23, 1868, I fell in with a party of eight of these Godwits on the ooze at Canvey Island, at the mouth of the Thames, and with some difficulty contrived to get within range of them, and shot three.

The Black-tailed Godwit may be readily distinguished from the Bar-tailed species by its superior length of leg, and black tail. Moreover, the uniform colour of the under-parts does not extend to the belly, as is the case with the other. The weight varies with age and condition from 12 to 14 oz.

CURLEW. *Numenius arquata*¹ (Linnæus). Pl. 22, fig. 8.

Length, ♂ 21 in., ♀ 26 in.; bill, 5 to 6 in.; wing, 11·5 to 12·25 in.; tarsus, 3 in.

Resident; breeding on the moors, heaths, and wastes in Scotland, Northumberland, Derbyshire, Yorkshire, Shropshire, Norfolk, North and South

¹ *Arquata* is a substantive in apposition and the mediæval Latin name for this bird. For an adjectival form we might have *arcuatus*.

Wales, Dorsetshire, Devonshire, Cornwall, and in many parts of Ireland. Coming down to the coast in autumn, it frequents the mud flats in the tidal harbours, sometimes in large flocks.

The first record of its breeding in Norfolk will be found, *Zool.*, 1889, p. 336, where Mr. J. H. Gurney states that the Curlew has nested amongst the ling on the Prince of Wales' estate at Sandringham. In Dorsetshire Mr. Mansell Pleydell has noted several instances of its nesting on the heath lands.

The velocity with which a Curlew flies is astonishing. At Turnberry Lighthouse, on the Ayrshire coast, during a storm at the end of 1893, a Curlew dashed through one of the tower lights, completely smashing the protecting plate glass, which was a quarter of an inch thick.

The weight of this bird varies, according to age and condition, from 1 lb. 12 oz. to 2 lbs. 8 oz. I have shot and weighed many, chiefly in autumn and winter, but occasionally in spring, in Pagham Harbour, Sussex, and Breydon Harbour, Norfolk.

I have seen a *pure white* Curlew which was shot on the shore of the Dornoch Firth in December 1899, and another was shot in Co. Donegal in 1870 (*Zool.*, 1870, p. 2141).

WHIMBREL. *Numenius phæopus* (Linnæus). Pl. 22, figs. 9, 9a. Length, ♂ 16 in., ♀ 18 in.; bill, 3 to 3·5 in.; wing, 9·5 in.; tarsus, 2 in.

There is reason to believe that the name *Whimbrel*, generally employed by English naturalists to

designate the smaller species of Curlew found in the British Islands, is a corruption of an older and more significant word. Prof. Newton ("Dict. Birds," p. 1036), on the authority of Prof. Skeat, has: "Whimbrel, the bird that keeps on uttering a cry imitated by *whim*, a name made known to Willughby (1678) as being used at the mouth of the Tees."

But long before Willughby's time, viz., in 1530, the bird was known in the very county referred to as the *Whimpernel* (see the "Durham Household Book," 1530-31, pp. 46, 129). To *whimper*, or utter a querulous cry, is eminently expressive of this bird's note, and if Willughby be responsible for the name *Whimbrel*, he must have been misled in the spelling of it by the pronunciation of his informant. The suggestion made by Mr. Furnivall in 1868 of the existence of a French form, *Whimbreau*, so far as I am aware, has not been verified, although the name *Brewe* is to be found in Russell's "Boke of Nurture" and in the "Boke of Kervynge" [carving], printed in 1513 by Wynkyn de Worde.

On the Sussex coast this bird is known as the *Titterel*, an equally expressive name, from its tittering cry, and in Somersetshire *Checker* and *Checkerel*; in Cumberland, *Half Curlew*, *Curlew Knave*, and *Curlew Jack* (synonymous terms, as at cards; see the "Household Books" of Lord William Howard of Naworth Castle, 1612, p. 164); in Norfolk, *Spowe*, from the Scandinavian *spoi* and *spou* (see the "Household Books" of the L'Estranges of Hunstanton, 1520, and Stevenson, "Birds of Norfolk," ii. p. 202),

and *May-bird*, from the season of its regular appearance in spring. It is a spring and autumn migrant.

According to W. Dunbar (*Ibis*, 1865, p. 435), a few pairs remain to breed in Sutherlandshire and Caithness, but no direct evidence of this has been furnished. See Harvie-Brown, *Proc. Nat. Hist. Soc. Glasgow*, 1875, p. 111, and "Fauna of Sutherland and Caithness," p. 225; and E. J. Booth, "Catalogue of Birds," 1896, p. 26.

In the Outer Hebrides the Whimbrel is believed to have nested on North Ronay in June 1885 ("Fauna O. Hebrides," p. 137), but the nearest point at which it is known to breed with certainty is on one of the southern isles of Orkney. Farøe and Iceland are the headquarters of this species in Western Europe.

Although seldom met with in Great Britain except in spring and autumn, when on migration to and from its breeding haunts, the Whimbrel has been occasionally observed in winter (*Ann. Scot. Nat. Hist.*, 1899, p. 113).

The weight of an adult bird is 16 oz.

ORDER IX. HERODIONES

Fam. TANTALIDÆ.

GLOSSY IBIS. *Ibis falcinellus*, Linnæus. Pl. 24, fig. 2.
Length, 22 in.; bill, 5 in.; wing, 10·5 in.; tarsus, 4 in.

When the Rev. Richard Lubbock, in 1845, published his "Fauna of Norfolk," he wrote of this

bird: "Fifty years back it was seen often enough in England to be known to gunners and fishermen as the Black Curlew. It is now a rare visitant, appearing at uncertain intervals, generally in autumn."¹

In Sowerby's "British Miscellany" (1806) a coloured figure is given of a Glossy Ibis in the collection of Dr. Lamb of Newbury, described as "the only British specimen known."² "This Ibis" (says Dr. Lamb) "was shot Sept. 28, 1793, while skimming with another over the river Thames between Henley and Reading. I found nothing in his stomach but undigested plants. He had many *pediculi* and a vast number of other small insects about him, which I sent to my learned friend and patron, T. Marsham, Esq., Treas. Linn. Soc."³ It is noticed by Montagu.

Since the publication of the former edition of this Handbook, I have noted the following occurrences of this species in the British Islands:—

One, Derrymore, near Tralee, Oct. 1872, in the collection of birds belonging to Mr. Neligan.

One, Brayton Bridge, near Selby, Yorkshire, May 1874 (Clarke and Roebuck, "Handb. York. Vert.," p. 52).

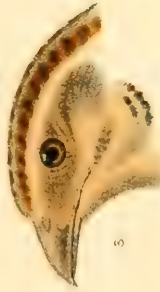
Four, Poole Harbour, Oct. 1877. Pike, *Zool.*, 1878, p. 296.

One, mouth of the Ythan, Aberdeenshire, Oct. 4, 1880. Sim, *Zool.*, 1881, p. 26.

¹ It has no real affinity with the Curlews, with which, owing to the shape of the bill, it was formerly associated. Its relationship is with the Spoonbills. Possessing certain divergent characters from the typical genus *Ibis*, it is placed by some in a distinct genus, *Plegadis*.

² No British specimen is noticed by Willughby (1678), and it is not mentioned by Sir Thomas Browne (1662). Latham (1790) refers to one in the Leverian Museum, which was shot in Cornwall.

³ See Lamb's "Ornithologia Bercheria," *Zool.*, 1880, p. 313.



1. Partridge. 2. 3. 3a. Quail, ♂, ♀, foot. 4. 5. 5a. Black Grouse. 6. Woodpigeon or Ring Dove. 7. Stock Dove. 8. 8a. Turtle Dove.

One, Skegness, Lincolnshire, Sept. 9, 1881. Cullingford, *Zool.*, 1882, p. 22.

One, Ball's Park, Hertfordshire, Sept. 10, 1881 (*Trans. Herts Nat. Hist. Soc.*, ii. p. 84).

One, Dogmersfield Park, Hants, Sept. 15, 1881. Hooper, *Zool.*, 1881, p. 494.

One, on the Wolverton Marshes, near Lynn, Sept. 16, 1881. Southwell, *Zool.*, 1881, p. 469. Previously seen at Cley, *Zool.*, 1883, p. 318.¹

One, Tring Reservoir, Herts, Oct. 29, 1886 (Hon. W. Rothschild in litt., Oct. 31, 1886).

One, Saltash, Devon, Oct. 4, 1900. Brought to me in the flesh by Mr. John Cooper, by whom it was preserved.

The last-mentioned bird, which was exhibited by me at a meeting of the Linnean Society, Nov. 1, 1900, measured in expanse of wing 36 in., and weighed 12½ oz.

Fam. PLATALEIDÆ.

SPOONBILL. *Platalea leucorodia*, Linnæus. Pl. 24, fig. 1. Length, 31 in.; bill, 7 in.; wing, 14 in.; tarsus, 5.5 in.

The Spoonbill, Shovelard, Shoveler, or Popeler was formerly resident (or perhaps a regular summer migrant from Holland), but it is now only an occasional visitant at uncertain intervals.

Sir Thomas Browne, who died in 1682, wrote of this bird, then known as the *Shovelard*, that it used to build in the heronry at Claxton and Reedham in Norfolk, as well as at Trimley in Suffolk.

¹ The reported occurrence of so many specimens of the Glossy Ibis in different parts of the country about the same time shows how quickly the appearance of a rare bird is detected at the present day.

For forty years (*i.e.* since 1835) this record of the former breeding haunts of the Spoonbill in England was the only one known to ornithologists; but in 1877 I found evidence from a Survey of Manors belonging to the Duke of Norfolk in Sussex, made in 1570, that in that year *Shovelers* and Herons were breeding in the woods called the Westwood and the Haselette at East Dene, near Goodwood (*Zool.*, 1877, p. 425).

In 1886 I discovered the still more interesting fact that in the time of Henry VIII. Spoonbills used to build in the heronry which at that time existed in the Bishop of London's park at Fulham¹ (*Zool.*, 1886, p. 81). Since then, Prof. Newton (*Trans. Norf. Nat. Soc.*, vi. 1896, p. 158) has directed attention to a curious passage in the Calendar of Patent Rolls of Edward I., printed in 1895, showing that in the year 1300 there were eyries of Spoonbills (*poplorum*) in the woods at Whinburgh, Cantley, and Wormgay in Norfolk; this additional evidence of the former breeding of this bird in England being, it is believed, the oldest on record. It is not surprising, therefore, to find it mentioned by its ancient and often overlooked name *Popeler*, latinised to suit the language of the document.² The word is evidently cognate with or

¹ In Nov. 1865 I examined and took down a description and the above measurements of two Spoonbills which had been recently shot at Kingsbury Reservoir, within a very short distance of the ancient haunt of this species at Fulham.

² In the *Promptorium Parvulorum* (*apud Lynn, circa 1440*) we find "*Popelere*, a byrd (*Schovelerd*) populus," on which see an interesting note by the editor.

corrupted from the Low Dutch *Lepelaar* (Willughby has *Lepelaer*), and Prof. Newton (*l.c.*) suggests that it may still survive in the name *Poppylot*, part of Feltwell Fen, which was still undrained in 1853, and would perhaps even then have afforded suitable harbour for a company of Spoonbills had any been left in the country.

In a "Description of Penbrokeshire,"¹ written by George Owen of Henllys in 1603, the author, treating "of the abundance of foule that the country yeeldeth and of the severall sortes thereof" (cap. 16), remarks, "In the bogges breedeth the crane, the byttur, the wild ducke, and teale . . . on highe trees the Heronsheues, the *Shoveler*, and the Woodquestes." Commenting upon this passage (*Zool.*, 1895, pp. 241, 245), the Rev. Murray A. Mathew aptly remarks that the former existence of these breeding stations of the Spoonbill accounts for the persistency with which the birds at the present day pay visits to their ancestral haunts; adding, that flocks occasionally still appear on the mud-flats of Milford Haven, and are not rare in the neighbouring county of Cardigan on the river Dovey. On May 16, 1893, a flock of fourteen Spoonbills were seen to settle down in the river Dovey below Glandyfi Castle (Salter, "Birds of Aberystwith," 1900, p. 11), and Rodd has recorded the appearance of flocks of more than a dozen at a time in Cornwall.

¹ This is the old spelling, and is said to be derived from the Welsh *pen*, head, and *broch*, foam, descriptive of the storm-vexed headlands of that coast.

Similar visits of Spoonbills in recent years to Norfolk, where they formerly bred, have been noticed by Stevenson (*Zool.*, 1882, pp. 370–373; 1883, p. 317).

In Scotland this bird is rarely met with in the estuaries on the east coast. In October 1859 a flock of ten visited the Bay of Kirkwall in Orkney, where half-a-dozen of them were shot.

In Ireland, according to Mr. Ussher, the Spoonbill is regarded as a rare and irregular visitor, occurring in the maritime counties, chiefly in autumn and winter. It feeds much on shrimps, as well as on small fish and mollusca. As to its mode of feeding, see Knox, *Zool.*, 1843, p. 226, and Wolley, *Zool.*, 1846, p. 1213.

The weight of two specimens examined by me was 3 lbs. and $3\frac{1}{2}$ lbs.; expanse of wing, 4 ft. 4 in. and 4 ft. 3 in. respectively.

Fam. CICONIIDÆ.

WHITE STORK. *Ciconia alba*, Bechstein. Pl. 24, figs. 3, 3a. Length, 44 in.; bill, 8·3 in.; wing, 23 in.; tarsus, 8·75 in.

There is no evidence to show that the Stork ever nested in the British Islands; in fact, Ray has expressly stated that they did not do so in his time. His words are, “In littoribus nostris interdum sed rariùs cernitur; apud nos non nidificat” (*Synopsis Avium*, 1713, p. 97). At the period of its migrations, however, in spring and autumn, a few are seen annually, and chiefly in the eastern counties,

doubtless coming to us from Holland. An irregular visitant to England, and rarer in Scotland, it has been procured in Ireland on a few occasions in Cork and Wexford. Two were killed in Shetland in July 1865 (*Zool.*, 1865, pp. 9767, 9772).

The weight of an adult Stork is 8 to 10 lbs.

The Rev. Hubert Astley of Benham Park, Newbury, has published an interesting account (*Field*, Aug. 25, 1900) of his attempt to domesticate young Storks obtained from Holland in June. In the summer of 1900 he liberated five. Every evening about seven o'clock they would sail with widespread wings in splendid circles towards their roosting-place, and every morning about four o'clock they returned to the park in the immediate vicinity of the water. On August 14 they took their departure, presumably for Africa; a few days later their owner learnt that they were seen near Portsmouth, where three of them were shot by some local gunner.

Fam. ARDEIDÆ.

COMMON HERON. *Ardea cinerea*, Linnæus. Pl. 25, figs. 1, 2. Length, 38 in.; bill, 5 in.; wing, 18 in.; tarsus, 6.75 in.

Resident, and generally distributed. In the *Field* of Feb. 17 and March 9, 1872, I published a list (revised in the *Zoologist*, 1872, and again in the "Encyclopædia of Sport," 1897, art. "Heron") of all the Heronries ascertained to be then or lately existing in the British Islands. A separate list of

the Irish Heronries is given by Mr. Ussher in his recently published "Birds of Ireland."

Modern statistics show that Heronries in Great Britain, instead of decreasing in number, as some writers suppose, are really on the increase, and this in spite of the persecution to which the birds are subjected at the hands of the fish-preservers and holders of a ten-shilling gun licence.

That they are destructive to trout and salmon at the spawning beds there can be no doubt, but they may be driven or frightened away instead of being killed, as too often happens. It is perhaps not generally known that Herons are very useful in killing rats. Selby, "Ill. Orn.," ii. p. 13; Harting, "Sketches of Bird Life," p. 268; and Feilden, *Zool.*, 1892, p. 110.

As an object of sport, the Heron has come to be almost forgotten. There was a time, and that within the memory of those still living, when Heron-hawking was practised by an English falconer, who died in his sixty-second year no longer ago than 1871—the late Edward Clough Newcome, of Hockwold, in the county of Norfolk. For an account of this almost forgotten sport, as practised by him and other falconers, contemporaries and predecessors, see the "Encyclopædia of Sport," 1897, *art.* "Heron."

Occasionally, when seeking to establish a new colony, Herons will attempt to take forcible possession of a rookery, and pitched battles between the two species will last for several days. A notable instance of this occurred at Dallam Tower, West-

morland, where a grove in which Herons built having been cut down, the Herons endeavoured to effect a settlement in a neighbouring rookery. The rooks opposed this invasion, and desperate battles ensued. Many of the rooks were killed, and several of the herons also lost their lives; but the latter succeeded in holding some of the trees, and harmony was at length restored.

The weight of a full-grown young Heron is from 3 lbs. to $3\frac{1}{2}$ lbs.; of a fine old one, 5 lbs. to $5\frac{1}{2}$ lbs.

PURPLE HERON. *Ardea purpurea*, Linnæus. Pl. 25, figs. 3, 4. Length, 36 in.; bill, 4.75 in.; wing, 14.25 in.; tarsus, 5.25 in.

An occasional visitant to England, presumably from Holland, where it breeds in small colonies, as at the Naarden Mere and Horster Mere, near Amsterdam, in dense masses of reeds.

It is rarely seen in Scotland, where not more than half-a-dozen have been met with at different times; one as far north as Caithness.

In Ireland a single example is recorded to have been shot at Carrickmacross, Co. Monaghan, and is preserved in the Science and Art Museum, Dublin.

NIGHT HERON. *Nycticorax griseus* (Linnæus). Pl. 25, figs. 8, 9. Length, 23 in.; bill, 3 in.; wing, 12 in.; tarsus, 3 in.

There is good reason to believe that this bird at one time nested annually in England in suitable localities. Although this is no longer the case,

specimens are still met with at irregular intervals every year (I have notes of its occurrence in upwards of sixty instances), and it may accordingly be considered an annual visitant.

Half-a-dozen instances of its occurrence in Scotland are on record; three in the south, one in Aberdeenshire, and one in Argyllshire. In addition to these, an immature male was shot on the east coast of Barra, in the Outer Hebrides, on Oct. 12, 1896, after a heavy gale from the north-east (Peel, *Ann. Scot. Nat. Hist.*, 1897, p. 43).

In Ireland, where the Night Heron is regarded as a rare and irregular visitor, Mr. Ussher states that more than twenty have been recorded since 1834, the majority of them immature birds, procured in autumn. So many adults, however, have been met with in April, May, and even June (the latest was reported at Courtown, Co. Meath, on May 10, 1900), that we cannot doubt the Night Heron would breed annually in this country if left undisturbed in suitable quarters, *e.g.* by the overgrown banks of sluggish streams, and in marshes and swamps, where reedy pools with alders and bog-myrtle afford sufficient concealment for the birds and their nests.

The birds of the year are quite unlike the adults in plumage. The latter are grey, with greenish-black head and back, and long white crest feathers; the former are dull brown, streaked and spotted with white on the neck and back, and have no crest. According to observations made by the late Robert Swinhoe, the immature plumage undergoes

little change until the second winter, or until the bird is two years old; and both sexes breed before they have acquired the fully adult plumage.

BITTERN. *Botaurus stellaris* (Linnæus). Pl. 25, fig. 10.
Length, 26 to 28 in.; bill, 2·75 in.; wing, 12·5 in.;
tarsus, 3·75 in.

At one time common in England and Ireland; but the drainage of marsh-lands has long since deterred it from nesting here.

In the fourteenth century it was so common in the Cambridgeshire fens, and so esteemed as an edible wildfowl, that the taking of its eggs was prohibited. At a Court Baron of the Bishop of Ely held at Littleport in the eleventh year of Edward II. (May 15, 1318), it is recorded that several persons were fined for collecting the eggs of Bitterns (*ova botorum*), and carrying them out of the fen (*extra mariscam*), to the great destruction of the birds (Selden Society, vol. ii., on the Court Baron). In more recent times Graves, in his "British Ornithology" (1821), mentions a nest on the river Cam, which contained four young birds and an addled egg, and gives a figure of the old bird, which was shot before the nest was found. Both Lubbock and Stevenson refer to the former nesting of the Bittern in Norfolk, and in *The Zoologist* for 1846 (p. 1321) will be found a figure of a young Bittern, which was taken, with an addled egg, from a nest at Ranworth Broad. In 1849 or 1850 a nest containing four eggs was found at Tring Reservoir,

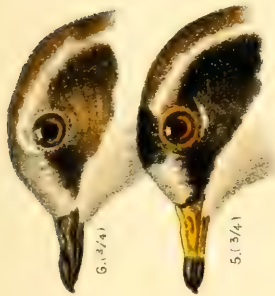
Herts (*Ibis*, 1865, p. 433); and a few years later another nest with eggs was taken, and the bird shot, near Drayton Beauchamp, Bucks (*Zool.*, 1868, p. 1255). In the latest instance recorded, a nest containing two eggs was found on Upton Broad, Norfolk, on the 30th March 1868, and on the 25th May following a nestling Bittern was captured at the same place (Stevenson, "Birds of Norfolk," vol. ii. p. 164).

Strange to tell, in an aviary at Lilford Hall, Northamptonshire, a pair of Bitterns made their nest, in which four eggs were laid: one bird sat very steadily, but without result (*Zool.*, 1893, p. 91).

At the present day the Bittern is best known in England and Ireland as a winter visitant, at which season it is often met with by sportsmen when snipe-shooting in the bogs. In some winters these birds are quite common in December and January, showing that a considerable immigration takes place, and occasionally they have been observed migrating. In one instance, for example, forty or fifty were seen in one flock (*Zool.*, 1883, p. 223).

No bird is better adapted by the colour of its plumage to escape detection in its natural haunts. The yellow plumage striated with darker markings, and the green beak, which is held pointed upwards when the bird is at rest, render it almost invisible amongst the green stems and yellow leaves of the fading reeds amongst which it crouches.

The singular note of the Bittern, which has been variously termed "booming," "bellowing," "bump-



1. 1a. Stone Curlew. 2. 3. Golden Plover, sum. & wint. 4. Dotterel. 5. 6. Ringed Plover, ad. juv. 7. 8. Kentish Plover.
9. 9a. Little Ringed Plover. 10. 11. 12a. Grey Plover, sum. & wint.

ing," and "bumbling," has given rise amongst old writers to a variety of fables to account for the mode by which it is produced. Having stood within ten yards of a Bittern while it was uttering this curious sound, I am enabled to state from personal observation that the beak, so far from being plunged into the mire (*fide* Thomson, author of "The Seasons"), or water (according to Chaucer), or within a reed (as Dryden hath it), is pointed vertically upwards, resembling at a little distance a green reed stem amidst faded leaves. To my ear, the sound produced is comparable to that which I have heard uttered by the cock Bustard when "showing off" in the spring. For further notes on this subject see Torrey "On the Booming of the American Bittern" in *The Auk* for January 1889; "On the Vocal Organs of the American Bittern," *Contrib. Sci.*, vol. i. pp. 59-68; and Leverkühn, "Das Brüllen der Amerikanischen Rohrdommel," *Orn. Monats. Deutsch. Vereins zum Schutze der Vogelwelt*, xv. 1890.

The weight of an adult Bittern in good condition varies from $2\frac{1}{2}$ to $2\frac{3}{4}$ lbs.; but one shot near Lynn on January 26, 1886, weighed only 1 lb. 2 oz.; expanse of wing, 46 in.

LITTLE BITTERN. *Botaurus minutus* (Linnæus). Pl. 25, figs. 11, 12, 12a. Length, 11 in.; bill, 1.9 in.; wing, 5.75 in.; tarsus, 1.75 in.

An occasional summer visitant to England; much rarer in Scotland and Ireland. Although no well-authenticated instance of its having nested in this

country is on record, there is at least presumptive evidence of its having done so (*Zool.*, 1848, p. 1969; "Birds of Middlesex," p. 165; and Gurney, *Zool.*, 1894, p. 88; 1895, p. 98). In the last-mentioned case, a pair were observed at Rollesby Broad, Norfolk, and probably nested, as they were seen there during the months of May, June, and July. The skulking habits of these birds, and the almost impassable nature of the swamps which they frequent, render detection, except by accident, extremely difficult.

In *The Zoologist* for 1894 (p. 454) will be found two figures of the Little Bittern, drawn from photographs of a living bird, illustrating the protective coloration of the plumage, which, as in the case of its larger relative, renders it almost invisible in a reed bed at the distance of a few yards from the observer.

ORDER X. FULICARIAE

Fam. RALLIDÆ.

WATER-RAIL. *Rallus aquaticus*, Linnæus. Pl. 26, fig. 9. Length, 10 in.; bill, 1.25 in.; wing, 4.75 in.; tarsus, 1.5 in.

Resident, but migratory also in spring and autumn; the birds which remain with us throughout the winter receiving considerable accessions to their numbers in March and April, these numbers being again visibly diminished in the fall of the year.

It is especially abundant in summer about the Norfolk Broads, whence a dealer at Yarmouth is in

the habit of receiving annually a great number of the eggs for sale to collectors.

In Scotland and the Isles it is generally distributed, and is found even in Shetland. The Migration Reports supply numerous instances of the appearance of the Water-Rail at remote and isolated lighthouses and lightships, thus proving its migratory habits.

In Ireland it is considered to be a resident, breeding in every county. It is generally to be found in the haunts of snipe, and is more often met with by snipe-shooters than by any other class of observers. Its skulking habits give much trouble before it can be made to take wing, and the remarkably narrow form of the sternum and easily compressible ribs enable it to run with ease through the thickest herbage, a notable illustration of the correlation of structure with habits.

Its weight varies from 5 oz. to 6 oz., or little more than that of a Snipe.

LAND-RAIL or CORNCRAKE. *Crex*¹ *pratensis*, Bechstein. Pl. 26, figs. 6, 7, 8. Length, 10 in.; bill, 0·75 in.; wing, 5·5 in.; tarsus, 1·75 in.

A summer migrant. Many instances, however, are on record of its having been met with in England and Ireland during the winter months. These may be individuals of late broods unprepared to leave at the proper time, or wounded birds unable to

¹ Genus *Crex*, Bechstein, "Naturg. Deutschl.," iv. p. 470 (1803); *Porzana*, Vieillot, "Analyse," p. 61 (1816).

take part in the autumn migration. In the north of England this bird is called "Daker-hen," *i.e.* the "acre-hen" or "field-hen," cognate with the Scandinavian *Ager höne*. Under this name it is mentioned by Turner, Merret, and Willughby.

Mr. W. H. Henderson, of Nether Perkley, Linlithgow, N.B., informed me that when shooting on Ben Lawers, on the 12th August 1872, he bagged a Land-Rail at an elevation of 2500 feet.

In Sept. 1892 a white Land-Rail was shot at Keddleston, and is figured in Whitlock's "Birds of Derbyshire," p. 190.

The average weight of this bird is from 7 oz. to 8 oz., or little more than half that of a good partridge.

SPOTTED CRAKE. *Crex porzana* (Linnæus). Pl. 26, fig. 3. Length, 9 in.; bill, 0·5 in.; wing, 4·5 in.; tarsus, 1·25.

A spring and autumn migrant, occasionally remaining to nest in suitable localities. Eggs were found near Whittlesea Wash in Cambridgeshire in 1883 (*Zool.*, 1891, p. 90). Before the fenlands were so extensively drained it used to breed commonly in the eastern counties of England, and also in the marshes bordering the Thames in Kent and Essex. Graves, in his "British Ornithology," 1821, observes, "The Spotted Crake is met with in greater abundance within a few miles of London than perhaps in any other part of this kingdom. We have known this bird to breed in the fields to the left of the Kent Road, called Rolls Meadows."

The measurements above given were taken from one which I shot in Sussex in Oct. 1872 (*Zool.*, 1890, p. 410). I used to meet with it in the marshes lying between Sidlesham and Selsea, where it might sometimes be seen in the broad dykes swimming like a little Moorhen, nodding its head and flirting its tail.

The late Capt. A. Clark Kennedy wrote me word that he had seen this bird on two occasions on the Nith in Dumfriesshire, and had once found its nest in Kirkcudbrightshire—often in Suffolk.

In Ireland, according to Mr. Ussher, it is a rare visitor, chiefly in autumn, but has bred in Co. Roscommon, and it is believed also in Co. Kerry.

The distribution of the Spotted Crake in the British Islands has been well worked out by Mr. O. V. Aplin; *Zool.*, 1890, p. 401, and 1891, p. 88.

Weight, $4\frac{1}{2}$ to 5 oz., or the weight of a Snipe.

BAILLON'S CRAKE. *Crex bailloni* (Vieillot). Pl. 26, fig. 4. Length, 7 in.; bill, 0.5 in.; wing, 3.5 in.; tarsus, 1 in.

As the nest of this species has several times been found in Cambridgeshire and Norfolk (*cf.* Sealy, *Zool.*, 1859, p. 6329; Overend, *Zool.*, 1866, p. 389; and Stevenson's "Birds of Norfolk," ii. pp. 402, 403), and the bird itself has been procured in almost every month of the year, it is included in this part of the "Handbook" as a local resident in England, where it appears to be almost entirely confined to the eastern counties. One was picked up under telegraph wires near Nottingham on June 22, 1893

(*Zool.*, 1893, p. 459). It has only once been obtained in Scotland, and twice in Ireland, namely, near Youghal and in Tramore Bay, both in Co. Cork.

Weight, 2 oz. ; expanse of wing, $10\frac{1}{2}$ in.

LITTLE CRAKE. *Crex pusilla* (Gmelin). Pl. **26**, fig. 5.

Length, 8 in. ; bill, 0·5 in. ; wing, 4 in. ; tarsus, 1·2 in.

Has been noticed sufficiently often in England to justify its being placed in this part of the "Hand-book." The seasons of the year at which it has been killed seem to indicate that it is a spring and autumn migrant. On the other hand, it may be a scarce resident, whose small size and skulking habits cause it to be often overlooked. I have only once met with this bird in England. On the 25th Oct. 1867 I flushed one on a marsh adjoining the river Bure, about five miles from Yarmouth, but having just discharged both barrels at a snipe, was unable to secure it. The bird rose so close to me that I could mark the absence of white on the dorsal plumage, and from this and its small size I felt pretty sure as to the species. It dropped in the water amongst thick reeds, and, in spite of the exertions of my dog, eluded all attempts to make it rise again.

In the adult plumage the Little Crake resembles a miniature Land-Rail ; Baillon's Crake a miniature Spotted Crake. Both have the typical beak of a Crake—*Crex* of Bechstein, 1803 ; *Porzana* of Vieillot, 1816. For distinguishing characters of the two species see *Zool.*, 1867, p. 974. The measurements



1.



5a. (2/3)



2.



7 (2/3)



6 (2/3)



4 (2/3)



5 (2/3)



9.



10 a.

1 a.



10 (1/3)

1. 1a. Sanderling 2. 2a. Common Sandpiper. 3. 4. Dusky Redshank, sum. & wint. 5. Greenshank. 6. 7. Redshank, sum. & wint.
8. Green Sandpiper. 9. Wood Sandpiper. 10. 10a. Avocet.

of both species above given are taken from specimens in my collection.

As a British bird the Little Crake was first obtained by Markwick in Sussex, at Catshill, near Battle, in March 1791, and was supposed by him to be a Spotted Crake (see his "Catalogue of Sussex Birds," p. 9), but a description and coloured drawing of the bird in a MS. of Markwick's preserved in the Library of the Linnean Society proves it to have been the rarer species (see *Zool.*, 1890, p. 343). Since Markwick's day half-a-dozen other specimens of this little bird have been procured in Sussex, as noted by Messrs. Knox, Borrer, Ellman, Dutton, and Parkin (*Zool.*, 1895, p. 309). Three have been obtained in Yorkshire; a few in other counties.

The Little Crake has not been met with in Scotland, and only one specimen has been reported from Ireland. This was obtained at Balbriggan, Co. Dublin, on March 11, 1854, and came into possession of the Rev. Canon Tristram.

The weight of this bird is 2 oz., or barely that of a Jack Snipe.

WATER-HEN or MOORHEN. *Gallinula chloropus* (Linnæus). Pl. 26, fig. 2, 2a. Length, 13 in.; bill, 1·5 in.; wing, 6·75 in.; tarsus, 1·75 in.

Resident, and generally distributed; frequenting weedy ponds and the overgrown banks of streams; often roosting in coverts at a distance from water, and sometimes at a considerable height from the ground.

The young Water-Hen, before it is able to fly, makes its way along the ground on all fours, using its undeveloped wings quite as much as its feet to aid its progression. A similar thing has been observed of the Little Grebe (Newton, *Ibis*, 1889, p. 577), and of the Hoatzin, *Opisthocomus cristatus* (Beddard, *tom. cit.*, p. 286), although the last-named bird finds additional aid in climbing by the use of its "wing-claws."

A curious "hairy" variety of the Water-Hen has been described and figured by Mr. J. H. Gurney, *Trans. Norf. Nat. Soc.*, vol. iii. p. 581, and vol. iv. p. 143.

The Water-Hen has been accused of eating fish, but the charge has been disputed by a good observer, Mr. Armistead, of the Solway Fishery, Dumfries, who states, "The Water-Hen is often seen about the fish-ponds, but I cannot find that it does any harm" (*Zool.*, 1888, p. 269).

But if these birds do no harm by devouring young fish in the streams, they are not regarded with much favour by game-preservers; for there is no doubt that they eat a great quantity of the food intended for pheasants, a practice which, notwithstanding their ornamental appearance, does not commend them for protection.

COOT. *Fulica atra*, Linnæus. Pl. 26, fig. 1, 1*a*. Length, 16-18 in.; bill, 1·3 in.; wing, 8·5 in.; tarsus, 1·3 in.

Resident, but migratory in autumn; frequenting large weedy ponds, and the reed beds which often

fringe the shores of inland lakes ; and assembling in winter in large flocks. They feed much on water-weed, and will not remain on pools where it has been removed. This was clearly proved by Charles Waterton in Yorkshire.

In *The Field* of 9th November 1895, Mr. F. Fane reported having seen, about the year 1880, a milk-white coot amongst a flock of the ordinary colour near Ross Castle, on the lower lake of Killarney ; and a white Coot was shot at Kilravock, May 8, 1884 (Harvie-Brown and Buckley, "Fauna of the Moray Basin," ii. p. 169). In *The Zoologist*, 1889, p. 153, Mr. Whitaker has noted that at Southwell, Notts, in March 1888, a variety of the Coot was shot which was "splashed all over with white, and looked as if it had been in a snowstorm."

Coots vary considerably in size, and from their habit of "flying" at dusk like wildfowl, are often mistaken for ducks in the uncertain light. But as their long legs and toes are carried considerably beyond their short tails, this gives them a more elongated appearance on the wing, and serves to distinguish them.

ORDER XI. ANSERES

Fam. ANATIDÆ.

MUTE SWAN. *Cygnus olor*, Gmelin. Pl. 27, fig. 8.
Length, 4 ft. 6 in. to 5 ft. ; bill, 4.25 in. ; wing, 27 in. ;
tarsus, 4.5 in.

Although generally regarded as exclusively a domesticated species, this bird is to be found in a

wild state in Southern Sweden and Denmark. It has long been known to breed on the Danube, where, according to the Crown Prince Rudolf, some nest every year in a large swamp above Melkovic. Mr. F. C. Selous found the Mute Swan breeding in a wild state in Asia Minor, in a great marsh near Sakizbounou, a Turkish village on the Menander river (*Ibis*, 1900, p. 417).

This bird has been domesticated for so many centuries in England that the precise date of its introduction is unknown. Anciently proclaimed a royal bird, it was ordained that when at liberty in a public river or creek, no subject could claim ownership in a Swan except by grant from the Crown. The privilege of keeping Swans seems to have extended as far back at least as 1483, as appears by laws and orders made in that year and in 1496. In creating this privilege, the Crown granted "Swan-marks" (*cygni notæ*), notches or nicks on the bill to denote ownership; and the books or rolls of Swan-marks that have come down to us are amongst the most curious relics of the past. The names *cob* and *pen*, applied to the male and female Swan respectively, are traceable to those ancient "Laws and Orders for Swans" in which the sexes are invariably so designated (*Zool.*, 1895, p. 372). Those privileged at the present time to keep Swans on a public river (*sc.* on the Thames) are Her Majesty the Queen, the Vintners' Company, and the Dyers' Company, and the old custom of marking the birds (*Swan-upping*) as soon as the young broods are sufficiently well

grown is still annually observed. In August 1895 I was permitted to take part in the ceremony, and steered the Vintners' boat to Windsor. My account of the proceedings, with notes historical and descriptive, will be found in *The Field*, Sept. 28, 1895. Some idea of the abundance of Swans on the Thames may be inferred from the fact that in August 1897, between London Bridge and Henley, the number taken up was 481. Of these, 168 belonged to the Queen, 181 to the Vintners' Company, and 132 to the Dyers' Company. The respective marks of ownership are given in the "Encyclopædia of Sport," 1898, p. 419.

Swans, it is said, pair for life, build a fresh nest every year, and if left unmolested will frequent the same locality. Stevenson states that young hen-birds do not lay till their *second* year, some not until the third or fourth, and commence by laying from three to five eggs; but the Swan-herd at Abbotsbury, in 1878, after an experience of fifty years, declared that they do not lay before their *third* year. The period of incubation is about six weeks, or thirty-nine days from laying the first egg on March 19 (*Ibis*, 1891, p. 185). The colour of the cygnets is at first sooty grey above, which colour disappears almost entirely after the second autumn, and when two years old the birds become quite white.

In the so-called POLISH SWAN, *Cygnus immutabilis* of Yarrell (Pl. 27, fig. 9), the cygnets are white from birth, a peculiarity which suggested the

specific name *immutabilis*. Instances, however, have been recorded in which ordinary tame Swans have been seen accompanied by white cygnets, and others which were followed by cygnets some white, the rest grey (Newton, *Zool.*, 1887, p. 463 ; 1888, p. 470). Opinions still differ as to whether the Polish Swan should be regarded as specifically distinct from the Mute Swan or not. See the letters of Messrs. Macpherson, Saunders, Southwell, and Bartlett in *The Field* of August 25 and September 1, 1894.

For an account of the famous Swannery at Abbotsbury, see Mansel-Pleydell, "Birds of Dorsetshire," 1888, p. 144, and for a notice of others at Clarendon, Glastonbury, and Ely, see the article *Swan* in the "Encyclopædia of Sport," 1898.

For a description of the famous "Swan-pit" at Norwich, see Stevenson's "Birds of Norfolk," and Southwell, *Trans. Norf. Nat. Soc.*, vol. v. p. 265. From this ancient institution the Governor of St. Helen's Hospital supplies not only the tables of the Mayor and Corporation of Norwich, but many private owners in the neighbourhood, who consign their cygnets to his care for the purpose of being fattened.

As to the reported strength of wing in the Swan, and the fracture of a sportsman's arm by a wild Swan, see *Zool.*, 1896, p. 356.

WILD SWAN or WHOOPER.¹ *Cygnus musicus*, Bechstein. Pl. 27, fig. 12. Length, 5 ft.; bill, 4·25 in.; wing, 25·5 in.; tarsus, 4·25 in.

Formerly nested in the Orkneys, as well as in the Faröe Islands, but now only met with as a winter visitant from Lapland, where Wolley found it breeding, and countries farther to the north-east; most numerous in Scotland, but seen in most of the harbours on the east and south coasts of England during hard weather in January and February. See my article on Wild Swans, giving dates of arrival, *Field*, Feb. 20, 1886.

In Ireland the Whooper occurs as a winter visitor in the proportion of one to twenty-five of Bewick's Swan, and is therefore a rarer bird.

For an account of the breeding of *Cygnus musicus* and *C. bewickii*, see Seebohm and Harvie-Brown "On the Birds of the Lower Petchora" (*Ibis*, 1876, pp. 437-441), and of the inter-breeding of *Cygnus musicus* and *C. buccinator* (*Zool.*, 1895, p. 24).

For descriptions of shooting Wild Swans in a Sussex harbour see "Essays on Sport and Natural History," 1883; and of catching Wild Swans in Iceland, *Zool.*, 1887, p. 254; *Field*, Nov. 2 and 23, 1895; *Zool.*, 1896, p. 356.

¹ It would seem that "whoop" is the older form, from the Anglo-Saxon *hwopan*, to cry out; "hoop," from the French *houper*, with the same signification, is of later introduction, and came in with other Norman words relating to the chase. The former mode of spelling has long been sanctioned by many authorities, and, for the reasons given, though both forms are to be found in standard English dictionaries, it is here adopted

A remarkable capture of an immature Whooper in Yorkshire is described by Mr. W. H. St. Quintin, *Field*, Dec. 30, 1899.

The weight of a male is 20 to 24 lbs.; of a female, 18 to 19 lbs.; expanse of wing about 8 ft.

BEWICK'S SWAN. *Cygnus minor*, Keys. & Blasius.
Pl. 27, figs. 10, 11. Length, 4 ft.; bill, 3·75 in.; wing, 21 in.; tarsus, 4·75 in.

A regular winter visitant, and, as above stated, commoner in Ireland than the Whooper. Thirty or forty in a flock are often met with, and in severe winters over a hundred have been seen assembled. In 1880, on December 17, according to Mr. R. Warren, more than 200 were seen on Lough Cullen, Co. Mayo, and during the severe frost of 1881 as many as 800 were reported to be on the lake at Castle Gregory, Co. Kerry.

These birds usually arrive about the beginning of December, that is to say, much later than other wildfowl, and depart towards the end of February. Their breeding haunts lie to the east of the White Sea, where, amongst willow scrub on islands in the delta of the Petchora river, Messrs. Seebohm and Harvie-Brown were the first to discover their nests and eggs (*Ibis*, 1876, p. 440).

This is said to be the commonest of the Wild Swans on the Arctic portions of the mainland of Siberia and the low islands to the north. Seebohm saw many hundreds flying northwards in spring during his visit to the Yenesei, and obtained the

eggs in lat. $69^{\circ} 30' N.$, where no other species of Swan was to be seen. Considerably smaller in size than the Whooper, the weight of Bewick's Swan varies from 13 to 15 lbs.

GREY LAG GOOSE. *Anser ferus* (Gmelin). Pl. 27, figs. 1, 1a. Length, 32 in.; bill, 2.5 in.; wing, 17.5 in.; tarsus, 2.75 in.

Breeds annually, though in decreasing numbers, on some of the lochs and islands of Ross-shire, Sutherland, and Caithness, as well as in the Hebrides; formerly also in the English fens. A winter visitant to England and Ireland, but much less common than either the Bean or the Pink-footed Goose. It is a rare bird in Cornwall, where it was first noticed by Rodd (*Zool.*, 1862, p. 8002). Charles St. John, writing in 1849 ("Tour in Sutherland," vol. i. p. 139), observed: "The Grey Lag Goose breeds on Loch Maddie, Loch Laoghal, Loch Urigil, &c., but I am sorry to see that these fine birds have every chance of being entirely driven away from their haunts." In 1866 they were reported as having almost entirely deserted Loch Urigil (where, however, they nested in 1881), and much diminished on Loch Loyal, where only one pair bred in 1886 (Harvie-Brown and Buckley, "Fauna of Sutherland and Caithness," 1887, p. 184). It is said that this Goose was not formerly a migratory species in England, but permanently resided and bred in the "carrs" of Yorkshire, and probably in the fens of Lincolnshire. (See Strickland

on British Wild Geese, *Naturalist*, 1858, p. 271.) It used to breed, according to Pennant, in Lincolnshire in 1769, in the fens between Cambridge and Ely about 1773, and in Quay, Waterbeach, Swaffham, and Wicken fens at the end of the last century (*Zool.*, 1879, p. 76; 1883, pp. 384, 432).

The name Grey Lag, bestowed on this species by most writers on British ornithology, is apparently a corruption of the A.S. *leag*, that is, *lea* or field-geese, possibly so named to distinguish it from the marine root-geese (in old records *rut-goose*), *i.e.* the Brent, which feeds much on the roots of *Zostera marina*. This suggestion, however, does not meet with the approval of Prof. Skeat, who states that no Anglo-Saxon word ending in *g* still preserves the *g* in modern English. The *g*, he observes, became a *y* before 1100 A.D. For other suggested derivations of the word *lag*, see *Ibis*, 1870, p. 301, and Newton, "Dict. Birds."

The weight of a young Grey Goose is from 7 to 8 lbs.; of an adult from 9 to 10 lbs.

BEAN GOOSE. *Anser segetum* (Gmelin). Pl. 27, fig. 2.

Length, 34 in.; bill, 2.4 in.; wing, 19 in.; tarsus, 2.6 in.

A winter visitant from the tundras bordering the Petchora River, where it breeds commonly. It was stated by Macgillivray that this species frequented the Hebrides in summer, but this proved to be a mistake, although it is common there in winter. According to Selby, it was found breed-

ing on some of the lakes in Sutherlandshire ; but later observers have shown this statement to have been erroneous. To Ireland it is a regular winter visitant.

As to the species which visits the Humber district (whether Pink-footed or Bean Goose), see *Field*, May 20 and June 10, 1893 ; Cordeaux, June 17, 1893 ; Macpherson and Caton Haigh, June 24, 1893 ; Sharp and Boyes, July 8, 1893. The result of this correspondence shows that the common Wild Goose of the Humber district is the smaller Pink-footed Goose, and not, as was supposed, the Bean Goose ; and so says Stevenson for Norfolk.

The weight of a Bean Goose is from $7\frac{1}{2}$ to 8 lbs.

PINK-FOOTED GOOSE. *Anser brachyrhynchus*, Baillon.

Pl. 27, fig. 4. Length, 30 in. ; bill, 1.75 in. ; wing, 17 in. ; tarsus 2.5 in.

A winter visitant. Said to have been found by Macgillivray breeding on the islands in the Sound of Harris, and on the lochs of North Uist ; but subsequent observation showed that he had mistaken the Grey Lag Goose for this species. Robert Gray states that the Pink-footed Goose is only found in Scotland in the winter months, and that, with the exception of the western islands, no locality can boast of it in any numbers. It is, nevertheless, the commonest species of wild goose which visits the Firth of Forth.

Since the first edition of this work was published this bird has been found in Ireland, where one was

shot on Lough Swilly, Co. Donegal, October 19, 1891 (Patterson, *Zool.*, 1892, p. 33). The late Sir Victor Brooke had previously recognised the Pink-footed Goose in Meath, but was unable to secure a specimen (A. G. More, *Irish Naturalist*, 1892, p. 4).

In winter, as above stated, this is the common wild goose of the Yorkshire wolds and of the fens of Norfolk.

Weight, $6\frac{1}{2}$ to 7 lbs.

WHITE-FRONTED GOOSE. *Anser albifrons* (Gmelin).

Pl. 27, fig. 3. Length, 27 in.; bill, 2 in.; wing, 16 in.; tarsus, 2.5 in.

A winter visitant to England, Scotland, and Ireland, but somewhat local in its distribution. Has once been shot in St. Kilda (*Zool.*, 1895, p. 348).

It has been clearly shown by Professor Newton (*Proc. Zool. Soc.*, 1860, p. 339, and *Ibis*, 1860, p. 404) that Linnæus applied the specific name "*erythropus*" to the smaller race of White-fronted Goose, known as *Anser minutus* of Naumann and *Anser temminckii* of Boie, which inhabits Lapland, and which very seldom comes to this country. The larger White-fronted Goose, which visits the British Islands regularly in winter, should therefore bear the name *Anser albifrons* of Gmelin, that name being the next in priority of date.

Since the former edition of this "Handbook" was published, one of the small race of white-fronted goose was shot in Northumberland by Mr. Alfred Chapman in September 1886 (see *Zool.*, 1887, p. 14,

and Chapman's "Art of Wildfowling," p. 152), and another specimen was subsequently obtained in Somersetshire (*Zool.*, 1888, p. 227). The dimensions of this smaller form are as follow :—Length, 21 in. ; bill, 1·25 in. ; wing, 15 in. ; tarsus, 2·25 in.

The weight of *A. albifrons* is 6½ to 7 lbs.

BARNACLE GOOSE. *Bernicla leucopsis* (Bechstein). Pl. 27, fig. 5. Length, 26 to 28 in. ; bill, 1·3 in. ; wing 16 in. ; tarsus, 2·3 in.

So called from its fabled growth from barnacles. See "The Ornithology of Shakespeare," pp. 247–256.

A winter visitant ; common in the West of Scotland and in the Outer Hebrides, and more abundant on the west than on the east coast of England (*Zool.*, 1891, pp. 68, 193). Prior to 1862 it was common on the Dee marshes ; now very scarce. On the coast of Pembrokeshire it arrives early in October, often in company with Brent Geese.

In Ireland this bird is a regular winter visitor to the coasts and islands of Louth, Donegal, Sligo, Mayo, and Galway.

Weight, 5 to 5¾ lbs.

BRENT GOOSE. *Bernicla brenta* (Pallas). Pl. 27, fig. 6. Length, 22 to 24 in. ; bill, 1·5 in. ; wing, 15 in. ; tarsus, 2 in.

Called Brent, *i.e.* burnt, from the colour of the dorsal plumage, which resembles charred wood.

A regular winter visitant ; in England commoner on the eastern than on the western shores, and

throughout the West of Scotland much less abundant than the Bernicle.

In Ireland it is, with the exception of *Anser albifrons*, the commonest of the wild geese found there in winter.

This is the Rut-geese (*i.e.* Root-geese) of old writers, so called from its feeding on the succulent roots of the grass-wrack, *Zostera marina*. It is mentioned as the *rut-goys* in the Durham Household Book, 1530–34, with a note by the editor which confirms this interpretation. See also *Zool.*, 1882, p. 296, and Newton, "Dict. Birds," *s.v.* Rode-geese.

In the stomach of one shot on the Yorkshire coast were found specimens of a shell (*Crenella faber*), the only known locality for which is the Sea of Ochotsk (Gwyn Jeffreys).

As to the white-bellied form of Brent Goose which breeds in Arctic America, and is occasionally met with in this country, see Seebohm, "British Birds," vol. iii. p. 508, and *Zool.*, 1887, pp. 29, 182.

The Brent is the smallest of all the wild geese which frequent our coasts in winter, averaging in weight from $3\frac{3}{4}$ to $4\frac{1}{4}$ lbs.

CANADA GOOSE. *Bernicla canadensis* (Linnæus).

Length, 42 in.; bill, 2 to 2.50 in.; wing, 18 to 20 in.; tarsus, 3 in.

Although frequently met with in a state of liberty in winter, there is no evidence that this species comes to us from America. On the contrary, the fact of its having been domesticated here for

the last 200 years rather indicates that the birds shot in winter have escaped from semi-domestication.

See a note on the migration of the Canada Goose by the late Dr. John Rae, *Zool.*, 1884, p. 346.

There are said to be three forms, or even species, of the Canada Goose : (1) The true *Bernicla canadensis*; (2) A short-billed variety known as Hutchins's Goose; and (3) A long-billed variety, *leucolæma*, described and figured by Andrew Murray, *Proc. Roy. Phys. Soc. Edinb.*, vol. ii. pp. 51-53.

EGYPTIAN GOOSE. *Chenalopex ægyptiacus* (Linnæus).

Length, 28 in. ; bill, 1·75 in. ; wing, 16 in. ; tarsus, 3 in.

Generally regarded as an annual winter visitant, but really an introduced species, not known to have crossed the Mediterranean without man's intervention.

The birds of this species found on our coasts in winter are probably wanderers from private lakes and pools on which ornamental waterfowl are kept temporarily confined by having their flight feathers cut. They recover the use of their wings on moulting and make their escape, usually to meet the fate of such wanderers by being shot and recorded as *rare aves in terris*. The young also when able to fly often make their escape before they can be pinioned.

SHELD-DRAKE. *Tadorna vulpanser* (Linnæus). Pl.

28, figs. 14, 15. Length, 26 in. ; bill, 2·4 in. ; wing, 13 in. ; tarsus, 2 in.

A local resident, frequenting the sandhills upon the coast, where it usually, though not invariably,

makes its nest in a burrow; hence the name "Burrow-Duck" by which it is locally known. In the Hebrides it has been observed breeding in *rocky* holes, as well as *in peat* on Haskeir (Harvie-Brown), and in Ireland in a sandbank bordering a *fresh-water* lake, *i.e.* Lough Neagh.

The local term *sheld*, *i.e.* parti-coloured, adopted by Ray in 1674, indicates the proper mode of spelling the English name for this bird (*Zool.*, 1876, p. 4846). But see Newton, "Dict. Birds," p. 834, note. In an old Scottish Act of Parliament (16 Jac. VI. cap. 23) the form *Skaildraik* occurs (Muirhead, "Birds of Berwickshire," and *Zool.*, 1896, p. 273).

On the west coast of Scotland and elsewhere Sheld-drake's eggs are often hatched under common hens, and successfully reared.

Intermediate in size between Mallard and Wild Goose, a Sheld-drake weighs from $3\frac{3}{4}$ to 4 lbs.

WILD DUCK. *Anas boscas*, Linnæus. Pl. **28**, figs. 1, 2.
Length, 24 in.; bill, 2·25 in.; wing, 11 in.; tarsus, 1·75 in.

A local resident, migratory in spring and autumn.

The so-called "Bimaculated Duck" of Pennant is a hybrid between Wild Duck and Teal. The reasons for this opinion are stated *Zool.*, 1892, p. 149. One shot in Anglesey in January 1892 by Captain Brooke was obligingly forwarded to me for examination. In 1894 M. Suchetet, of Lille, published in pamphlet form (pp. 48) his *Histoire du Bimaculated Duck de Pennant*, with a coloured



2. (3/4)



1. (3/4)



4. (3/4)



3. (3/4)



5. (3/4)



6. (3/4)



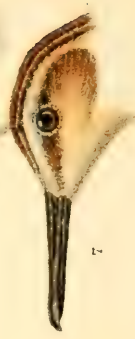
11.



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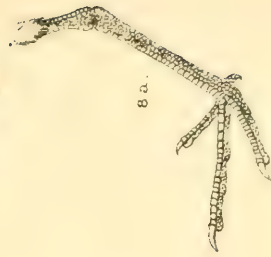
8.



7.



9.



8a.

1. 2. Knot, sum. & winter. 3. 4. Purple Sandpiper, ad. 5. 6. Curlew Sandpiper, ad. 7. 8. 8a. Little Stint, ad.
9. Temminck's Stint. 10. 11. Dunling, summer & winter.

figure of the bird, and another of a hybrid between Wild Duck and Gadwall. In a series of articles entitled *Oiseaux Hybrides* (*Mem. Soc. Zool. France*, 1891) he has also described a number of hybrids between this and other species of wildfowl.

On the change of plumage in ducks, see Water-ton's "Essays in Nat. Hist.," 1st series, p. 196, and Blyth, *Mag. Nat. Hist.*, 1837, pp. 259, 300; and on the moulting of the flight feathers by the Mallard in summer, *Zool.*, 1886, p. 228. The old fen-laws prohibited the killing of wildfowl while flightless. The subject of decoys is not here dealt with, since an entire volume has been devoted to it by Sir R. Payne Gallwey.

It is commonly believed that Ducks always nest on the ground, but the Wild Duck often nests in a tree, commonly on the top of a pollard ash or willow; sometimes in the deserted nest of another bird, even at some height from the ground, and often far from water.

As to the mode in which the young are brought down from such heights, see an article on "Bird Life in Kensington Gardens" (*Field*, Jan. 14, 1888), where observation was kept on a Wild Duck which brought off her brood from the top of a dead elm tree, by simply pushing them out of the nest.

Wild Ducks do not, as a rule, prey on fish, though they may devour fish spawn when they find it; but it is on record that in the crop of a Wild Duck on one occasion as many as thirty-three sticklebacks were found (*Field*, April 1892).

The weight of a Mallard is about 3 lbs.; of a Duck, $2\frac{1}{2}$ lbs.

GADWALL. *Anas strepera*, Linnæus. Pl. 28, fig. 9.

Length, 22 in.; bill, 2 in.; wing, 11 in.; tarsus, 1·5 in.

A rare winter visitant, less common in Scotland and Ireland than in England, though annually visiting Tiree, and perhaps hardly so rare in Ireland as supposed. It has certainly been obtained in Queen's Co., Waterford, Cork, Kerry, and Mayo, and specimens have been bought from time to time in the Dublin market.

In Norfolk the Gadwall has of late years become thoroughly established as a breeding species on meres where it is specially protected; and when visiting Lord Walsingham at Merton, I have had the pleasure of observing several of these ducks with their young broods. I have never met with it on the coast in winter, and regard it as essentially a fresh-water Duck. The legs and toes are not entirely dull yellow, as stated in some books, but have the interdigital membranes dusky, or almost black. In general appearance the Gadwall is not unlike the female Wild Duck, but has a white speculum on the wing, and the under tail-coverts spotted. Weight, from 2 lbs. to 2 lbs. 6 oz.

The origin of the name "Gadwall" is uncertain. It is so spelled by Willughby in 1678, but Merrett in 1667 has "gaddel," which may be an error of transcription for "gabble," bestowed on account of its noisy cry; hence the specific name *strepera*.

SHOVELER. *Anas clypeata* (Linnæus). Pl. 28, figs. 3, 4, 4a. Length, 22 in.; bill, 2·75 in.; wing, 10·25 in.; tarsus, 1·4 in.

A spring and autumn migrant, occasionally remaining to breed. The nest is reported to have been found in Haddingtonshire, Elgin, Kirkcudbrightshire (*Zool.*, 1880, p. 406), and Dumbartonshire; in Northumberland, Durham, Staffordshire, Nottinghamshire, Norfolk, Kent, and Dorsetshire. Yarrell states that it formerly bred in Romney Marsh; and Hewitson, in his "Eggs of British Birds," mentions Hornsea Mere as a former nesting-place. The drake incubates, and the young are kept from the water till grown up, like Sheldrakes (*Zool.*, 1886, p. 364). In the summer of 1889 I saw a nest of the Shoveler at Rainworth, Notts—the drake flying round in circles at the distance of about twenty yards—and young broods at Stanford Mere, West Norfolk, in 1885.

In Ireland the Shoveler is resident, and, according to Mr. Ussher, increasing; breeding in every province in small numbers.

Weight, 1 lb. 8 oz. to 1 lb. 12 oz.

PINTAIL. *Anas acuta* (Linnæus). Pl. 28, figs. 12, 13. Length, 26 to 28 in.; bill, 2 in.; wing, 11 in.; tarsus, 1·85 in.

A regular winter visitant in small numbers, a few remaining to breed in favourable localities.

Thus in Northumberland the late John Hancock

of Newcastle wrote in 1874: "There can be little doubt that this species occasionally bred at Prestwich Carr," a famous place for birds before it was drained, and he had in his collection a Pintail Duck which had been shot there during the nesting season.

In June 1881 Mr. Harvie-Brown took four duck's eggs on the island of Haskeir, Inner Hebrides, which he subsequently identified as those of the Pintail by the appearance of the down and a feather found in the nest (*Proc. Roy. Phys. Soc. Edinb.*, 1881-83).

The following year Mr. J. M. Wallis obtained a nest and eggs of the Pintail on a loch in Sutherland well known to Messrs. Harvie-Brown and Buckley, who have recorded the fact in their "Fauna of Sutherland and Caithness," 1887, p. 190. In May 1898 Mr. William Evans of Edinburgh found six or seven pairs of Pintails on Loch Leven in Kinross-shire, and discovered four nests. He was able not only to distinguish the ducks when put off their nests—which were placed in tufts of grass in dry and open situations at some distance from the water—but by subsequently placing two of the eggs in an incubator he had the satisfaction of disclosing "two unmistakable Pintail ducklings" (*Ann. Scot. Nat. Hist.*, 1898, p. 162).

In Ireland, according to Sir R. Payne Gallwey ("Fowler in Ireland," p. 51), one or two pairs of Pintails breed *every year* on Lord Castletown's demesne at Abbeyleix, Queen's Co., and he adds that he himself has seen female Pintails with young

broods in June both on Lough Mask and Lough Corrib, Co. Galway. This testimony, however, is considerably discounted by Mr. Ussher in his recently published "Birds of Ireland," p. 196.

The weight of a Pintail drake is 2 lbs. 8 oz. to 2 lbs. 12 oz.; the duck, 2 lbs.

WIGEON. *Anas penelope*, Linnæus. Pl. 28, figs. 10, 11.

Length, 18 in.; bill, 1·5 in.; wing, 10·5 in.; tarsus, 1·5 in.

As to the etymology of the name "Wigeon," see *Zool.*, 1882, p. 110. Professor Skeat has shown (*Notes and Queries*, 6th ser. v. p. 113) that the spelling "Wigion" is to be found as early as 1570 in Levin's *Manipulus Vocabulorum*, and that the insertion of the *d* in the word has no more etymological significance than it has in *judge* from the French *juge*. Hence there can be no doubt that if we spell "Pigeon" without a *d*, we must spell "Wigeon" by the same analogy, and "Widgeon" with a *d* must be regarded as a violation of established laws.

Best known as a winter visitant, and at that season, next to the Brent Goose, one of the commonest of British wildfowl.

Although a good many pairs may be found nesting in the North of Scotland, as in Sutherland and Caithness, Ross and Cromarty, and fewer in Ireland, the greater number retire to breed in Iceland, Lapland, and countries farther to the eastward. Small flocks begin to arrive on our east coast in

October (occasionally as early as the middle of September), increasing in numbers until the middle of November, by which date there are as many probably as will be seen during the winter. (See Chapman, *Zool.*, 1887, p. 4.) They then afford almost unlimited sport to the wildfowler both ashore and afloat, the greatest number being killed by the punt-shooters on such parts of the coast as afford shallow water over mud flats, on which the favourite food plant *Zostera marina* grows abundantly.

A large flock of Wigeon is termed by fowlers a *company*, a smaller number they call a *bunch*. A *company* of Wigeon when first collecting may be heard at a considerable distance by the whistling of the drakes and purring of the ducks, but when quietly settled down and busy feeding, the only sound heard arises from the motion of their bills, which is similar to that of tame ducks. They leave us about the end of February or beginning of March, although on the large inland pools of fresh water, where they are but little disturbed, a few may linger on till April. In exceptional cases nests and eggs of the Wigeon have been reported to have been found in England, as in Yorkshire (Clarke and Roebuck, p. 56; *Knowledge*, Feb. 1, 1898, with photograph of nest and eggs), Cheshire (*Ibis*, 1865, p. 444), Norfolk (Stevenson, iii. p. 188), and Sussex (Borrer, p. 350), but the identity of the species has not in all cases been satisfactorily established. A hybrid brood resulting from a cross between

Wigeon and Wild Duck is stated to have been reared two years in succession (Wellesley Taylor, *Field*, Oct. 19, 1895).

The weight of a "cock Wigeon" varies from 1 lb. 12 oz. to 2 lbs.; a "hen" 10 oz. to 12 oz. less.

TEAL. *Querquedula crecca* (Linnæus). Pl. 28, figs. 5, 6. Length, 14·5 in.; bill, 1·5 in.; wing, 7·25 in.; tarsus, 1 in.

A local resident, and, like the Wild Duck, migratory in spring and autumn, receiving at the latter season considerable accessions to its numbers from the Continent. I have several times found the nest in West Sussex, on the heath lands surrounding West Harting ponds on the Uppark estate, and always at a distance from the water.

A hybrid between Teal and Wild Duck (described as the Bimaculated Duck) was shot in Anglesey in Jan. 1892 (*Zool.*, 1892, pp. 109, 148), and another was taken in Captain Prettyman's decoy at Orwell Park, near Ipswich (*l.c.*). The former specimen, which I had an opportunity of examining, had yellow feet and partially upturned feathers in the tail, clearly indicating its relationship to the Wild Duck, and not to the Wigeon.¹

The weight of a Teal is from 12 to 14 oz.

As the American GREEN-WINGED TEAL (*Querquedula carolinensis*, Gmelin) is reported to have occurred in Devon and Hants (*Field*, Dec. 23, 1879; Jan. 3, 1880; and *Zool.*, 1880, p. 70), though

¹ See Stevenson, "Birds of Norfolk," iii. p. 184.

the specimens obtained may have been imported and escaped birds, it may be well to remark that it differs from the European species in wanting the white streak which extends from the bill over the eye in the latter; and the white line below the eye is nearly absent, being very indistinctly marked. It is also without the cream-coloured band on the scapulars, while across the shoulder there is a distinct transverse bar of white, no trace of which is to be found in the European bird.

The American BLUE-WINGED TEAL (*Q. discors*, Linnæus) is likewise recorded to have been shot in Yorkshire (*Zool.*, 1852, p. 3472) and in Cambridgeshire (*Zool.*, 1889, p. 228), as well as in Scotland at Drumlanrig, Dumfriesshire (*Nat.*, 1858, p. 168); but as so many foreign wildfowl are annually imported for parks and ornamental waters, it is impossible to say whether the solitary examples occasionally found at large are truly wild or escaped birds. The Blue-winged Teal was imported by Lord Dunmore and turned out on a loch at Rodel, in Harris. A bird recorded as the Blue-winged Teal, shot in Cowpen Marsh, Redcar (*Zool.*, 1882, p. 92), proved to be a young male Garganey (*Zool.*, 1885, p. 113).

GARGANEY. *Querquedula circia* (Linnæus). Pl. 28, figs. 7, 8. Length, 15·5 in.; bill, 1·6 in.; wing, 7·50 in.; tarsus, 1·2 in.

A spring and autumn migrant, remaining to breed in a few favoured localities, where it is known as

the "Summer Teal." The nest is reported to have been found in Norfolk, Suffolk, Cambridgeshire, Lincolnshire, and Huntingdonshire. It is of rare occurrence in Scotland, and but very few examples have been met with in Ireland. A pair appeared on Lough Broad, Co. Wicklow, April 26, 1870 (*Zool.*, 1870, p. 2284). The male was shot, and is preserved in the collection of Sir Victor Brooke. It is doubtful whether the female ever has the speculum of the wing of a decided green colour, as in the male.

Weight, 14 oz. to 16 oz.

POCHARD. *Fuligula ferina* (Linnæus). Pl. 29, figs. 5, 6. Length, 18 in.; bill, 2·25 in.; wing, 8·5 in.; tarsus, 1·4 in.

A winter visitant, a few annually remaining to breed. The nest is recorded to have been found in Yorkshire, Norfolk (frequently), and on the borders of Herts and Bucks. In May 1876 a Pochard's nest was found on Lord Walsingham's estate at Stanford Mere in West Norfolk, and a few days later Prof. Newton showed me some of the eggs. (See Stevenson, *Trans. Norf. Nat. Soc.*, 1876, p. 210.) In Scotland the nest has been found in Fifeshire (Evans, *Ann. Scot. Nat. Hist.*, 1896, p. 191), and also in Orkney (Buckley, "Fauna of Orkney," p. 174). In Ireland, according to Mr. Ussher, the Pochard has been found breeding in several counties.

Hybrids between Pochard and Tufted Duck have been met with; a bird of this description is in the

British Museum (*Proc. Zool. Soc.*, 1886, p. 550), and another in the Belfast Museum.

Having shot many of these Ducks at various times, and occasionally as late in the spring as the end of March, I have noticed that the colour of the iris varies with age. In the young bird it is pale yellow; in an older bird, orange; in a fine adult male, crimson;¹ but the colour has been observed to change from red to yellow from excitement (see Stevenson, "Birds of Norfolk," vol. iii. p. 207).

The weight also will vary, according to age, from 2 lbs. to 2 lbs. 6 oz.

WHITE-EYED POCHARD or FERRUGINOUS DUCK.

Fuligula nyroca vel *ferruginea* (Gmelin). Pl. 29, figs. 7, 8. Length, 16 in.; bill, 2.25 in.; wing, 7.75 in.; tarsus, 1.1 in.

A spring visitant, generally to the eastern counties of England between the Thames and the Humber. The east of England would therefore appear to be the western limit of its regular migration, the few individuals which have been killed more to the westward being stragglers. R. Gray, in his "Birds of the West of Scotland," p. 385, says, "I know of but one instance of the occurrence of this bird in any part of Scotland."

In Ireland this Duck has occurred in winter on the Dublin coast (Blake Knox, *Zool.*, 1871, p. 2645), two on the east coast in 1879 (Payne Gallwey, "Fowler in Ireland," p. 101), one on the estate of

¹ This is the case also with the Grebes.



1. 2. 2a. Turnstone, ad. juv. foot. 3. 3a. Oystercatcher. 4. 4a. Woodcock. 5. Great Snipe. 6. 6a. Common Snipe. 7. Jack Snipe. 8. Curlew. 9. 9a. Whimbrel. 10. Esquimaux Curlew.

Sir William Alexander, near Kells, Co. Meath, in Dec. 1889, and one on the Shannon near Athlone in Jan. 1893 (*Zool.*, 1893, p. 106).

A specimen of the Ferruginous Duck, known also as the White-eyed Pochard, sent from Yarmouth by Dawson Turner, is figured in Sowerby's "British Miscellany," 1806, tab. xxi.

A hybrid between *F. ferruginea* and *F. ferina* obtained on Rollesby Broad in Feb. 1845 (*Zool.*, 1845, p. 1137), is figured in Messrs. Gurney and Fisher's account of Norfolk birds (*Zool.*, 1846, p. 1379), and others have been since recorded.

Weight, 1 lb. 6 oz.

SCAUP-DUCK. *Fuligula marila* (Linnæus). Pl. 29, figs. 3, 4. Length, 18 in.; bill, 1.75 in.; wing, 9.25 in.; tarsus, 1.5 in.

So named from its habit of frequenting the beds of mussels, called *scalp* or *scaup*, on which it feeds. A maritime species, seldom coming inland except in very hard weather. As a winter visitant it is not uncommon on the north-eastern coasts. The majority disappear in March, but it is believed that a few pairs remain to breed on some of the lochs. It is reported to have nested in Sutherlandshire (see Selby, on the Birds of Sutherland, *Edinb. New Phil. Journ.*, vol. xx. p. 293; Harvie-Brown, *Proc. Nat. Hist. Soc. Glasg.*, 1875, p. 120; and Heatley Noble, *Ann. Scot. N. H.*, 1899, p. 215), and also on Loch Leven, Kinross-shire (Stark, *Proc. Roy. Phys. Soc. Edinb.*, vii. p. 203).

Proctor found it breeding commonly in Iceland, where Shepherd saw one sharing the nest of a Long-tailed Duck ("N.W. Peninsula of Iceland," p. 151). Dann also found it in considerable numbers on the swampy lakes towards the north of the Bothnian Gulf, near Lulea. See also Wolley's experience as related by Hewitson in the third edition of his "British Birds' Eggs." On February 21, 1895, Lord Lilford received a female Scaup-Duck which was taken in the Borough Fen decoy, near Peakirk (*Zool.*, 1896, p. 50), a most unusual occurrence, as this species hardly ever enters a decoy.

The so-called American Scaup-Duck, *Fuligula mariloides*, figured and described by Yarrell, is now generally admitted to be a hybrid. The specimen belonged to H. Doubleday; and at the sale of his collection in 1871 it was purchased by the late F. Bond, in whose possession I saw it. From an examination of this specimen, I have little doubt that it is a hybrid between Pochard and Scaup-Duck, although this view was not shared by Mr. Bond, who considered it a hybrid between *F. ferina* and *F. ferruginea*. The broad bill, however, as well as the dark colour of the head and dorsal plumage, are points which seem to me to indicate a relationship to *F. marila*.

The specimen recorded to have been shot on Rollesby Broad, Norfolk (Fisher, *Zool.*, 1845, p. 1137; 1847, p. 1778, and figure), is in the possession of Mr. J. H. Gurney, who informs me that "it is not the American Scaup-Duck, but the

so-called Paget's Pochard, *Fuligula homeyeri* vel *ferinoides*, now believed to be a hybrid between the Pochard and Ferruginous Duck." Of this cross Mr. Gurney has a second example, shot at Little Waxham, Norfolk, in February 1859; and a third and well-marked specimen was in the collection of F. Bond. Other examples have been obtained and recorded. (See Bartlett, *P. Z. S.*, 1847, p. 48; *Zool.*, 1847, p. 1779; *Ann. Mag. Nat. Hist.*, 1847, p. 422; and Stevenson, *Zool.*, 1872, p. 2980.)

The bird shot near Scarborough in January 1855, and stated (*Zool.*, 1855, p. 4631) to have been an American Scaup-Duck, was examined by John Hancock, who found it to be a female Pochard. Prof. Baird has remarked ("Birds of N. Amer.," p. 791), on the authority, I believe, of Prof. Newton, that the *F. mariloides* of Yarrell is not the *F. mariloides* of Vigors ("Voy. H.M.S. *Blossom*," 1839, p. 31), although Yarrell himself thought it was (*cf.* "Hist. Brit. Birds," 3rd ed., vol. iii. p. 349). And here I would hazard the opinion that while the former is a hybrid, the latter is not a good species, having been founded apparently upon small specimens of the well-known Scaup-Duck, an inhabitant of both Nearctic and Palæarctic regions. (See Baird, *op. cit.*, p. 791, and Swainson, "Faun. Bor. Amer. (Birds)," p. 453.)

Anas frenata, of which a specimen from Yorkshire is figured in Sowerby's "British Miscellany," tab. lxii., is the female of *F. marila*. (*Cf.* Sparmann, *Museum Carlsonianum*, ii. pl. 38.)

The weight of a male Scaup-Duck is 2 lbs. 7 oz.; of the female, 2 lbs.

TUFTED DUCK. *Fuligula cristata* (Leach). Pl. 30, figs. 9, 10. Length, 16·5 in.; bill, 1·75 in.; wing, 8 in.; tarsus, 1 in.

A winter visitant; but several instances are on record of its having remained to breed in Northumberland, Yorkshire, Stafford, Shropshire, and Sussex.

In May 1876 a nest of eggs of the Tufted Duck was taken at Stanford, West Norfolk, on the property of Lord Walsingham. Prof. Newton, who was present at the finding of the nest on May 30, showed me a few days later one of the eggs. (*Trans. Norf. Nat. Soc.*, 1876, p. 210.) I have seen nests at Rainworth and Newstead, in Nottinghamshire, where this Duck breeds regularly, and, being protected during the nesting season, is annually increasing.

During the summer of 1893 a brood of Tufted Ducks was reared in North Warwickshire, near Coventry (*Zool.*, 1893, p. 429), and another brood on a piece of private water at the mouth of the Titchfield River, Hants. This Duck has been found nesting also at Lord Ashburton's, The Grange, near Alresford. Some years ago, when residing much in West Sussex, I constantly saw small parties of Tufted Ducks on the ponds at West Harting during the winter months, and have shot five or six in a day by having them driven over me by the keeper, while I remained concealed amongst the reeds.

As to its breeding in Scotland, see Long, *Proc. Nat. Hist. Soc. Glasg.*, 1880, p. 53; Harvie-Brown, *Proc. Roy. Phys. Soc. Edin.*, 1895, p. 144; and *Ann. Scot. Nat. Hist.*, 1896. It is said to be increasing as a breeding species in the Solway district (R. Service, *Ann. Scot. Nat. Hist.*, 1897). In Ireland, according to Mr. Ussher, the Tufted Duck is now resident in limited numbers, and is extending its breeding range. It is common on loughs in the North of Ireland, where many are shot in winter and sent to the market in Belfast.

Weight, 1 lb. 10 oz. to 1 lb. 14 oz.

✕ GOLDEN-EYE. *Clangula glaucion* (Linnæus). Pl. 30, figs. 7, 8. Length, 18 in.; bill, 1·4 in.; wing, 8·9 in.; tarsus, 1·4 in.

A winter visitant to all parts of the British Islands. Adult females and young of both sexes are then commonly met with, but adult males more rarely. The common Wild Duck will frequently nest at some height from the ground, a favourite site being the head of a pollard ash or willow: the Golden-eye will discover a hole in the trunk, and will lay its eggs inside on the rotten wood, without any nest, after the fashion of a woodpecker. [A nest of this duck, with young birds, was reported to have been found by a shepherd in the hollow of an old larch tree on Loch Assynt, Sutherlandshire (More, *Ibis*, 1865, p. 447.)] In the summer of 1895 a pair of Golden-eyes bred in a plantation on the margin of Fewston

Reservoir, near Otley, Yorkshire, and reared four young ones. Another pair bred on the margin of Swinsty Reservoir; the male bird was shot, and is now in the collection of the Leeds Naturalists' Club (*Zool.*, 1895, p. 449).

Daniel, in the Supplement to his "Rural Sports," p. 627, has recorded the singular fact that in March 1810 no fewer than 170 Golden-eyes were taken in a flounder-net in the River Eden, running into St. Andrew's Bay, Fifeshire. They had alighted below the net, and on the flowing of the tide were carried, from the contraction of the channel, with great impetuosity into the net, where they were found the next morning drowned.

The weight of an adult Golden-eye is from 2 lbs. to 2 lbs. 6 oz. The Morillon of old writers is the young of this species; but the Morillon of Belon, described by Willughby as having its bill cut on the edge like a saw, legs and feet red on the inside, and its head ferruginous, is apparently a female Goosander.

BARROW'S GOLDEN-EYE (*Clangula islandica*), a native of Iceland, Greenland, and Arctic America, is reported to have been met with once at the mouth of the Derwent (*Zool.*, 1864, p. 9038), but it is extremely doubtful whether the species was correctly identified. (See Newton, "Dict. Birds," p. 369.) Robert Gray, in his "Birds of the West of Scotland," p. 396, writes: "For many years I have carefully watched for the appearance of *Clangula islandica* (Gmelin) in the Outer Hebrides, but without success." It is a larger bird than our well-



2 ($\frac{1}{2}$)



1 ($\frac{1}{2}$)



4 ($\frac{1}{2}$)



3 ($\frac{1}{2}$)



7 ($\frac{2}{3}$)



8 ($\frac{2}{3}$)



6 ($\frac{2}{2}$)



5 ($\frac{2}{3}$)



10 ($\frac{3}{4}$)



9 ($\frac{3}{4}$)



10. a



8 a ($\frac{1}{3}$)

1. 2. Black-tailed Godwit, sum. & wint. 3. 4. Bar-tailed Godwit, d^o. 5. 6. 7. 8. *Sa. Ruff & Reeve*, ad. ♂. sum. & wint., ad. ♀ & juv. ♂.
9. 10. 10a. Grey Phalarope, summer & winter.

known Golden-eye, and the male has a white speculum on the wing divided by a black bar. The white crescent-shaped spot on the side of the head also is larger, and comes up in front of the eye. The females of the two species are much alike, but in the rarer bird the bill in both sexes is shorter and not so deep at the base.

LONG-TAILED DUCK. *Harelda glacialis* (Linnæus).

Pl. 29, figs. 1, 2. Length, 22 in.; bill, 1 in.; wing, 9 in.; tarsus, 1.25 in.

A winter visitant to both the east and west coasts of Scotland, and common at that season in the Hebrides, Orkney, and Shetland. In England more often met with in winter on the east than on the west coast.

Immature birds *without the long tail-feathers* are occasionally found during the winter months in the estuaries and tidal harbours along the English Channel, whence they are sometimes reported as Harlequin Ducks.

In Ireland *Harelda glacialis* is regarded as an irregular winter visitor in small numbers.

Its breeding haunts are in Iceland,¹ Lapland, Spitsbergen, Novaya Zemlya, and probably a few nest in the Farøe Islands. Two eggs taken in Shetland, and given to Wolley as those of the "Calloo" Duck, were believed by him to be those of the Long-tailed Duck (see *Ibis*, 1865, p. 446, and Buckley and Evans' "Fauna of Shetland," 1899, p. 139).

Weight, 1 lb. 8 oz. to 1 lb. 10 oz.

¹ In Iceland, Mr. C. W. Shepherd found a Scaup-Duck and a Long-tailed Duck occupying the same nest, which contained several eggs of both species. ("North-West Peninsula of Iceland," p. 151.)

SCOTER. *Ædemia nigra* (Linnæus). Pl. 30, figs. 5, 6.
Length, 20 in.; bill, 5·25 in.; wing, 9·5 in.; tarsus,
1·25 in.

The name *Scoter* is probably a variant of *Scouter* and *Scout* (O.F. *escoute*) in allusion, perhaps, to the appearance of straggling parties of these ducks on the coast before the arrival of the main body of wildfowl.¹

A winter visitant, occasionally remaining in Scotland till late in summer. Reported to have nested in Caithness (*Zool.*, 1869, p. 1867) and Inverness-shire ("Fauna of Sutherland and Caithness," p. 194). Young birds in the down and the parent birds, shot at the nest in Caithness, were seen in 1871 by A. G. More at Small's, the birdstuffer, in Edinburgh.

As to the alleged breeding of the Scoter in Sussex on the Earnley Marshes, near Chichester, see *Zool.*, 1892, pp. 151, 228, and 1893, p. 151.

In Iceland Mr. C. W. Shepherd found this bird breeding in crevices of broken lava, and caught one on the nest with a landing-net.

The extent of the orange colour on the bill of the adult male varies considerably. (See Gurney, *Zool.*, 1894, p. 292, with figures.)

Weight, young male, 2 lbs. 5 oz.; adult male, 2 lbs. 10 oz.; female, 1 lb. 12 oz.

¹ John Macky, in his account of the Bass Rock ("Journey through Scotland," 1722, pp. 27-29) says:—"When the Solan geese are coming they send some before to fix their mansions, which for that reason are called *Scouts*." In Orkney the name *Scout* is applied to the Guillemot, *q.v.*

VELVET SCOTER. *Ædemia fusca* (Linnæus). Pl. 30, figs. 3, 4, 4a. Length, 22 in. ; bill, 1·9 in. ; wing, 11 in. ; tarsus, 1·25 in.

On the east coast of Scotland an annual winter visitant, less often met with on the east coast of England. Mr. Gurney thinks it is accounted rare from its habit of keeping out some miles at sea and thus escaping observation. When crossing from Dover to Ostend and from Harwich to Rotterdam, I have several times seen a few Velvet Scoters associating with flocks of Common Scoters in the proportion of about five per cent. They could always be distinguished with a glass by the white spot under the eye, and the white bar across the wing.

In Orkney the Velvet Scoter is an annual winter visitant, arriving in September and October, remaining until the spring, and frequenting the bays and firths, generally in flocks of from ten to twenty.

In Ireland, according to Mr. Ussher, there are some twenty records of the Velvet Scoter from various parts of the coast, the majority from the bays of Dublin and Louth, while the west coast seems to be very seldom visited by this bird.

The colour of the legs and feet in the Common Scoter and Velvet Scoter is very different, and is not correctly described in the text-books. In the Common Scoter the legs and toes are *green* with the interdigital membrane slate colour ; in the Velvet

Scoter the membrane is dark slate colour, but the legs and toes *orange-red*. I noted this in two birds shot on the same day (Nov. 6, 1897), at the mouth of the Thames off Canvey Island.

The weight of the Velvet Scoter was 2 lbs. 8 oz., the Common Scoter one ounce less, both birds being in good condition.

EIDER DUCK. *Somateria mollissima* (Linnaeus). Pl. 30, figs. 1, 2. Length, 22 in.; bill, 2·25 in.; wing, 12 in.; tarsus, 1·75 in.

Resident in Shetland, Orkney, the Hebrides, the coasts of Scotland, the coast of Northumberland, and the Farne Islands, where I have seen these Ducks sitting on their nests, and so reluctant to move for fear of having their eggs abstracted by Gulls that they would allow themselves to be touched before moving away. The southernmost breeding station of the Eider is believed to be Coquet Island, Northumberland. (See *Zool.*, 1887, pp. 13, 108.) Migrating down the east coast in November, they wander as far south as the English Channel, entering the estuaries of the Stour, the Blackwater, and the Thames on the way. I have occasionally come across immature ducks of this species in November on the Sussex coast off Pagham and Selsea.

The food of the Eider consists of mollusca (such as cockles, periwinkles, and mussels) and various crustacea. In the gullet of one was found a great spider crab (*Hyas araneus*) with an unbroken carapace $2\frac{1}{4}$ inches in length (Gurney,

Zool., 1893, p. 458). Attempts to domesticate the Eider with other ornamental waterfowl are not usually successful, owing to the difficulty of providing suitable food. Mr. W. H. St. Quintin, however, has described a mode of treatment which has proved sufficiently satisfactory (*Zool.*, 1888, p. 26).

The weight of an Eider Duck is from 5 to 5½ lbs.

The names *Eider* (Welsh *ydyr*, i.e. downy), applied to Cygnets in 1553 (Kirby, "Annals of Winchester College," p. 276), and *Dunter*, applied to this bird in Shetland and Orkney (from N. *dun* and Icel. *dúnn*), both have reference to the famous down, which, from its lightness and elasticity, is so much esteemed for quilts and coverlets, and which is not white like swan's-down, but grey. It requires about 1½ lbs. to make a coverlet for a single bed, and when unbleached the down is worth from 12s. to 15s. per lb. (Shepherd's "Iceland," p. 105).

 SMEW. *Mergus albellus*, Linnæus. Pl. 29, figs. 12, 13.

Length, 16 in.; bill, 1·25 in.; wing, 7·5 in.; tarsus, 1 in.

A winter visitant, but not numerous, and never seen in large flocks like many of the other Ducks. Adult males in their striking black and white plumage are rarely met with; the majority of those shot on our coasts by wildfowlers being females and immature birds of the year. They like the brackish water of our tidal harbours, where they get plenty of fish, and seldom come far inland except in very hard weather. Weight, 1 lb. 8 oz.

By some old writers this bird is called the Nun, presumably from its black and white head-dress. The origin of the name *Smew* is uncertain. In Norfolk and Suffolk the Wigeon is known to the coast gunners as *Smee*.

RED-BREASTED MERGANSER. *Mergus serrator*, Linnæus. Pl. **29**, figs. 10, 11, 11a. Length, 22 in.; bill, 2·25 in.; wing, 10 in.; tarsus, 1·5 in.

Resident in Scotland and Ireland, where it breeds on the small islands in the lochs; a winter visitant to England. Mr. J. H. Gurney informs me that he once saw an adult male of this species in summer near Lowestoft. Some years ago, when shooting much in Norfolk, I used to see these birds, as well as Goosanders, in autumn and winter in Breydon Harbour, but seldom fired at them (unless a specimen was wanted for some friend's collection), for, on account of their rank fishy flavour, they are quite uneatable. Their swimming and diving power seemed far superior to that of all other wildfowl except the *Colymbidæ* and the Grebes. An unusual case of a female Merganser assuming the plumage of the male is reported on the authority of Mr. Dresser (*Zool.*, 1893, p. 458). Weight, 2 lbs. 12 oz.

? GOOSANDER. *Mergus merganser*, Linnæus. Pl. **29**, fig. 9. Length, 28 in.; bill, 2·45 in.; wing, 11·25 in.; tarsus, 1·9 in.

A winter visitant to England and Ireland, frequenting both fresh and salt water. Of more

frequent occurrence in Scotland, especially on the west coast, and said to breed in the Hebrides (Macgillivray, "Brit. Birds," and *Ibis*, 1865, p. 447), although Mr. H. J. Elwes, who spent two months in the Hebrides during the nesting season of 1868, made special search for this species without seeing it (*Ibis*, 1869, p. 22); and Col. Feilden and Mr. Harvie-Brown, who visited the Long Island in the summer of 1870, were also unsuccessful in their search for it. Dr. Dewar, however, found it breeding in North Uist in 1858, and shot a female off the nest (Gray, "Birds of the West of Scotland," p. 403). It has been found nesting in Sutherlandshire (*Zool.*, 1868, pp. 1309, 1424), and Argyllshire. (See Hamilton Buchanan, *Proc. Roy. Phys. Soc. Edin.*, v. p. 189, and Booth, "Rough Notes on British Birds.") In May 1871, Mr. Harvie-Brown received fresh eggs of this bird from the north of Perthshire. The nest, as he informs me, was placed in the hollow of an old tree, and the eggs were taken on or about the 20th of May. In July 1871, a female Goosander with a brood was seen on Loch Awe (*Field*, July 29 and August 12, 1871). In May 1876, Mr. Osgood Mackenzie found a Goosander's nest containing nine eggs in Ross-shire, on the Fiona Loch (*Field*, May 20, 1876).

Weight, 3 lbs. 12 oz. to 4 lbs., varying according to sex and age, and exceeding that of the Merganser by 1 lb. to 1½ lb.

ORDER XII. PYGOPODES

Fam. COLYMBIDÆ.

GREAT NORTHERN DIVER. *Colymbus glacialis*, Linnaeus. Pl. 31, fig. 1. Length, 32 in.; bill, 3·5 in.; wing, 14 in.; tarsus, 3·5 in.

A winter visitant, a few remaining throughout the summer in Scotland and the Hebrides. Mr. Harvie-Brown discovered a pair breeding on a wild lonely loch in Assynt, Sutherlandshire (*Zool.*, 1868, pp. 1309, 1424). Saxby was satisfied that this bird had nested in the island of Yell ("Birds of Shetland," p. 279), and Edmondston also believed that it was occasionally to be found breeding in Shetland (*Zool.*, 1843, p. 365), but there is no satisfactory evidence of its having done so. (See Buckley and Evans' "Fauna of Shetland," p. 205.) In Ireland it is a regular winter visitor, the majority immature birds.

As to the distinction between this species and the closely allied White-billed Diver (*Colymbus adamsi*), and the claims of the latter to rank as a British bird, *cf.* Seebohm (*Zool.*, 1885, p. 144); Collett (*Ibis*, 1894, p. 269, with plate), and Harting (*Zool.*, 1896, p. 16). A White-billed Diver was shot at Pakefield, on the Suffolk coast, early in the spring of 1852, and is figured by Babington in his "Birds of Suffolk." Another specimen, now in the Newcastle Museum, was shot on the coast of Northumberland, but the precise date is unknown. There is

also a specimen in Booth's collection at Brighton (*Zool.*, 1896, p. 14).

Weight, 9 lbs. to 12 lbs. Dunn states that in Orkney it attains a weight of 10 lbs. to 16 lbs.

BLACK-THROATED DIVER. *Colymbus arcticus*, Linnaeus. Pl. 31, fig. 2. Length, 28 in.; bill, 2.25 in.; wing, 12 in.; tarsus, 3.25 in.

A rare winter visitant to England and Ireland from October until April, but resident in Scotland and the Hebrides, where it breeds in limited numbers. The late Lord Erskine gave me two eggs of this species which his gamekeeper had taken in North Uist. It is known to have nested in Orkney, and has been met with in Shetland, although it is not quite clear whether it remains to breed there. (See Buckley and Evans' "Fauna of Shetland," p. 206.) In Ireland one *with a black throat* is mentioned by Mr. Warren as having been seen at the mouth of the Moy River, Co. Mayo (*Zool.*, 1877, p. 329), and others on the Dublin coast in April and May (*Zool.*, 1879, p. 484). It may be remarked that all three species of Diver occasionally remain about their winter quarters long enough to acquire the full breeding plumage.

As to the simultaneous moulting of the flight feathers in this species, see Farren, *Ann. Scot. Nat. Hist.*, 1899, p. 114. Divers use their wings under water (Saxby, p. 279). Cormorants do not.

The weight of the Black-throated Diver varies, according to age, from 5 to 7 lbs.

RED-THROATED DIVER. *Colymbus septentrionalis*,
Linnæus. Pl. 31, figs. 3, 4, 4a. Length, 26 in.; bill,
2·25 in.; wing, 11·25 in.; tarsus, 3 in.

Resident in Scotland and the Hebrides, where it breeds; a winter visitant to England, where it is commonly known to the fishermen on the coast as the Speckled Diver, and Sprat Loon. A white one was obtained in Essex (*Zool.*, 1862, p. 8002). In Ireland it has been found breeding beside a small mountain lough in Co. Donegal (*Zool.*, 1885, p. 348, and 1887, p. 27; Ussher, "Birds of Ireland," p. 375). Nest and eggs figured by Pearson.

A Red-throated Diver, shot Nov. 17, 1887, on the Wye, near Ross, weighed 3¾ lbs.; length, 2 feet 2 inches; expanse of wing, 3 feet 6 inches. A finer bird shot on the Sussex coast in winter weighed 4 lbs. 8 oz.

Fam. PODICIPEDIDÆ.

GREAT CRESTED GREBE. *Podiceps cristatus* (Linnæus). Pl. 31, fig. 5. Length, 20 in.; bill, 1·75 in.; wing, 7·5 in.; tarsus, 2·5 in.

Podicipes, not *Podiceps*, is the name used by Linnæus, "Syst. Nat.," ed. 10, p. 136. See Babington, "Birds of Suffolk," p. 200, *note*. *Podicipes*, moreover, is used by Willughby, *Ornithologia*, p. 257, and by Catesby, *Nat. Hist. Carolina*, i. p. 91, and has been adopted more recently by Stevenson and Southwell, "Birds of Norfolk," vol. iii. p. 233,

note, as well as by Prof. Newton in his "Dictionary of Birds."

This bird is a local resident, migrating southward in winter; partial to large inland pools surrounded by reed beds, such as the *broads* of Norfolk and the *meres* of Shropshire and Cheshire, where it breeds regularly, as it does also on many lakes in Scotland and Ireland. (Ellison, *Zool.*, 1892, p. 425.) During the last few years a pair or two of Great Crested Grebes have annually reared their young so near London as the Penn Ponds in Richmond Park.

In Norfolk this bird is known as the *Loon* (Stevenson and Southwell, vol. iii. pp. 223-254), although this name is elsewhere bestowed on the Red-throated Diver or *Sprat Loon*, and in Lincolnshire *Gaunt* (*Zool.*, 1879, p. 76). For a suggested explanation of the latter name see *Zool.*, 1884, p. 350. Prof. Newton ("Dict. Birds," p. 381) derives "grebe" from the French *grèbe*: it seems more likely that the name is indicative of its crest; Cornish and Welsh *crib* and *criban*, a comb or crest (Skeat). "The tall *grib*" occurs in an Irish poem believed to be as old as the twelfth century (*cf.* Wilde, *Proc. Roy. Irish Acad.*, vol. vii. p. 1857). Grebes in preening their plumage habitually swallow feathers, which are subsequently ejected in the form of "pellets," similar to the "castings" of hawks and owls.

The structure of the leg bones is deserving of examination, as being curiously correlated with habit. (See Newstead, *Research*, Jan. 1, 1889, and *Proc.*

Linn. Soc., 1888). As to the mode of progression on land, see the careful observations made by Messrs. Coward and Oldham in their recently published volume on the "Birds of Cheshire," p. 248.

Weight, 2 lbs. 12 oz. to 3 lbs.

RED-NECKED GREBE. *Podicipes griseigena* (Boddaert).

Pl. 31, fig. 6. Length, 18 in.; bill, 1·5 in.; wing, 7 in.; tarsus, 2 in.

Breeding in Norway, Denmark, and North Germany, this bird migrates to England in the autumn, and on the east and south coasts is not uncommon as a winter visitant.¹ It sometimes (though rarely) remains late enough in spring to display the complete breeding plumage. I have occasionally obtained specimens in Pagham Harbour, Sussex, in the winter plumage, but with a few red feathers appearing here and there on the throat. The irides and base of the beak were then lemon-yellow, giving the bird a very striking appearance. The colour of the back, when the bird is swimming away from the punt-gunner and very low in the water, is so similar in tone to the dark wavelets of the tidal harbours which it frequents, as to render it at a short distance quite invisible but for the upright carriage of the head and neck as seen when it emerges from a dive. It is of rare occurrence in Ireland, where a few examples have been met with on the eastern and southern coasts.

¹ No fewer than twenty-eight were obtained off Scarborough in Jan. 1891. (*Zool.*, 1891, p. 193.)

SCLAVONIAN or HORNED GREBE. *Podiceps auritus* (Linnæus). Pl. 31, fig. 7. Length, 13·5 in.; bill, 1 in.; wing, 5·75 in.; tarsus, 1·75 in.

A winter visitor like the last named, but of more frequent occurrence. Breeds commonly in Iceland. In most parts of England it is the commonest species *in winter* next to the Little Grebe, and the same may be said of Scotland and the north and north-west of Ireland.

Weight, 12 to 13½ oz.

EARED GREBE. *Podiceps nigricollis* (Brehm). Pl. 31, figs. 8, 9. Length, 12 in.; bill, 0·9 in.; wing, 5·25 in.; tarsus, 1·5 in.

Messrs. Gurney and Fisher have noticed the Eared Grebe as a very rare summer visitor, possibly sometimes nesting in Norfolk. Five in summer plumage were killed in April at Wroxham, one of which is figured (*Zool.*, 1846, p. 1381); one on Rockland Broad, July 28, 1892; one in Anglesey, Aug. 1, 1892; another in Merionethshire, Dec. 17, 1891; one on the Arun, in Sussex, in Oct. 1892; and another off Weymouth in December 1894.

See the figure of the small black-chinned Grebe (*Colymbus hebridicus*) taken in a pond on Chelsea Common about June 1805, given in Sowerby's "British Miscellany," part xii. tab. 70 (1806).

An adult bird in summer plumage, shot near Dublin on June 15, 1847, was preserved in Watter's collection, and another in Co. Armagh, near Ben-

burb, in June 1849; but in Ireland, as in England, the majority of Eared Grebes met with are seen in the winter months—that is, between October and March. Mr. R. Warren has only once met with this species in Mayo, where he shot one in Killala Bay in February. Mr. Ussher received one from Dungarvan Bay in February 1890, which is now in the Dublin Museum, and mentions a few others in his recently published “Birds of Ireland.”

The average weight is 12 oz.

X LITTLE GREBE or DABCHICK. *Podiceps minor* (Gmelin). Pl. 31, figs. 10, 11, 12, 12a. Length, 9·5 in.; bill, 0·75 in.; wing, 3·75 in.; tarsus, 1·3 in.

Resident throughout the year, and generally distributed: migratory in spring and autumn. It is a regular summer visitor to the London parks, where I have several times seen the nests, and watched the old birds covering the eggs before leaving them. Two broods are sometimes reared. The young for some time are carried on the back of the parent, until able to shift for themselves. The seasonal changes of plumage are indicated on Plate 31. The weight of an adult is from 8 to 10 oz.

Fam. ALCIDÆ.

X PUFFIN. *Fratercula arctica* (Linnæus). Pl. 26, figs. 11, 12. Length, 12 in.; bill, 1·75 in.; wing, 6 in.; tarsus, 1 in.

The origin of the name “Puffin” is thus explained by Dr. Caius in his *Libellus de rariorum*

animalium historia: "Hunc nostri Puphinum dicunt, nos Pupinum a naturali voce *pupin*."

It is a summer migrant to all the precipitous coasts of the British Islands, the majority going south for the winter.

The island of Priestholm, off the coast of Anglesey, was once frequented by such an extraordinary number of these birds as to acquire the name of Puffin Island. When the Rev. W. Bingley, during a tour in North Wales, visited this island at the beginning of the present century, he found "upwards of fifty acres of land literally covered with Puffins." "I speak much within compass," he says, "when I declare that the number here must have been upwards of 50,000." He adds: "They arrive in the beginning of April, and remain till about the 11th of August,¹ taking possession of burrows in the crevices of the rocks, or on the sloping ground of the island, from which, in many places, they have expelled the rightful owners—the rabbits" ("Tour in North Wales," 1804, vol. i. pp. 348–354). Dr. Caius, in the work above quoted, states (p. 98), "that in his day (1570), Puffins were usually caught by means of ferrets, as we now take rabbits. At the present day, they are either dug out of the burrows, seized by hand, or drawn out with a hooked stick.

The southernmost breeding-place of this species appears to be the Berlengas or Farallones, a group

¹ On the Farne Islands, it is said, the Puffins arrive about the 5th of April and depart about the 5th of September.

of islands near the mouth of the Tagus, a trifle north of the latitude of Lisbon (Saunders, *Ibis*, 1871, p. 402), otherwise known to mariners as the Burlings (Feilden, *Zool.*, 1884, p. 470).

In autumn the palpebral appendages and portions of the beak are shed in a curious manner, causing the beak to appear smaller and darker in winter than it is in summer (Bingley, "North Wales," vol. i. p. 354). For a full description of this change, translated by me from the French of Dr. Bureau, see *Zool.*, 1878, p. 233, with coloured plate.

As to the appearance of Puffins in winter, and the divergency exhibited at that season in the form of the beak, see *Zool.*, 1862, p. 8003, and 1863, p. 8331. Beilby, who wrote the letterpress for Bewick's "British Birds," thought it evident, on comparing several specimens, that their beaks "increase in size with their age;" but, as will be seen from a perusal of Dr. Bureau's paper, this is not the case. The weight of an adult Puffin is 13 oz.

A larger species, from Spitsbergen, *Fratercula glacialis* (Leach), has been reported to have been met with in the Isle of Wight (More, *Zool.*, 1860, p. 6858, and Venables, "Guide to the Isle of Wight," p. 434), but the identification of the specimens obtained was not subsequently confirmed.

An excellent account of *F. glacialis*, by Prof. Newton, with a coloured plate by Wolf, will be found in *The Ibis* for 1865, p. 212, pl. vi.



1. Spoonbill or Shovelard. 2. Glossy Ibis. 3. White Stork. 4. Black Stork. 5. Great Bustard, ♂.
6. Little Bustard, ♂, ♀. 7. Macqueen's Bustard. 8. Comser. 9. 9a.

RAZOR-BILL. *Alca torda*, Linnæus. Pl. 26, figs. 13, 14.

Length, 17 in.; bill, 1·3 in.; wing, 7·25 in.; tarsus, 1·25 in.

May be found in limited numbers in the tideway of the open sea all round the coast throughout the year, but most conspicuous when frequenting the cliffs in hundreds during the breeding season.

These birds, which are nowhere so numerous as Guillemots, have been observed to carry their young on their backs over a rough sea, and to transport them in the same way from the cliffs. They go southwards for the winter to the Mediterranean.

One shot off Canvey Island at the mouth of the Thames, Dec. 14, 1895, weighed 27 oz.; the stomach was full of sprats, which were then plentiful. The weight varies from 24 to 27 oz.

LITTLE AUK. *Mergulus alle*, Linnæus. Pl. 26, figs.

15, 15a. Length, 8·5 in.; bill, 0·65 in.; wing, 4·5 in.; tarsus, 0·9 in.

A winter visitant from Iceland and Spitsbergen, where it breeds, and where it is known to sailors as *rotche* or *rotge*.¹ It is somewhat irregular in its appearance. After storms at sea, great numbers are driven upon the coasts of the eastern

¹ Wheelwright states that the Spitsbergen name for these birds (*rot-ges*) is derived from their peculiar cry, *rott-tet-tet-tet* ("Ten Years in Sweden," p. 441). But I suspect some confusion here in applying the Northern name to the wrong species—see Raine's note on the word *Rutgoys* which occurs (pp. 327, 343) in the "Durham Household Book," 1530-1534, published by the Surtees Society in 1844, and which from its signification is more applicable to the Brent Goose, *q.v.*

counties, and are not unfrequently carried by the gale to a considerable distance inland. This was particularly the case in the winter of 1894-95 (*Field*, Feb. 9, 1895).

Specimens in summer plumage are rarely met with in England. One in the collection of the late F. Bond was picked up dead in the Solent in the autumn of 1870. Another is in the Museum at Cambridge; and a third, with a black throat, was shot at Wells, Norfolk, May 26, 1857 (Stevenson, *Zool.*, 1857, p. 5758), all of which I have had opportunities of examining.

GREAT AUK or GARE-FOWL. *Alca impennis*, Linnaeus. Length, 32 in. (Montagu gives 36 in.); bill, 3·5 in.; wing, 6 in.; tarsus, 2 in.

This flightless sea-bird, once frequenting the coasts of Newfoundland, Labrador, Greenland, and the south-west of Iceland, was formerly a regular inhabitant of the British Islands, but is now believed to be extinct, no living example having been procured or seen since 1844, when the last of its race, so far as is known, was killed off Eldey Island, Iceland.

Under the name of "Gare-fowl," the Great Auk was noticed by Sir George M'Kenzie about 1684, in his account of Hirta (St. Kilda) and Rona, published in Pinkerton's "Voyages," vol. iii. p. 730, and is mentioned in Martin's "Voyage to St. Kilda," 1698, as formerly breeding on St. Kilda; it is also noticed in Macaulay's "History of St.

Kilda," written in 1758. John Macgillivray in 1840 found that it was well known to the inhabitants of that remote isle.

Wallis, writing in 1769 ("Nat. Hist. and Antiq. Northumberland," vol. i. p. 340), remarked: "The Penguin, a curious and uncommon bird, was taken alive a few years ago in the island of Farn, and presented to the late John William Bacon, Esq., of Etherstone, with whom it grew so tame and familiar that it would follow him with its body erect to be fed." In a footnote he has added the description, "*Alca rostro compresso ancipiti sulcato; macula alba ante oculos*" (Linn. *Faun. Suec.*, p. 43, n. 119).

The records of its occurrence in Great Britain are so few that they may be shortly enumerated here as follows:—

One taken alive, Farne Islands, before 1769. Wallis, "Nat. Hist. Northumb.," 1769, vol. i. p. 340.

One seen off Fair Isle, Orkney, June 1798. Baikie and Heddle, "Hist. Nat. Orcadensis," p. 88.

Two seen off Papa Westra, Orkney, 1812, one of which was sent the following year to Bullock. At the sale of his collection in 1819 it was purchased for the British Museum, where it is still preserved. Montagu, "Orn. Dict. Suppl." (1813). Mr. Harvie-Brown has given an excellent account of the home of this bird in Orkney, with a view of the ledge of rock from which the last specimen was shot. "Fauna of Orkney," p. 246.

One taken alive off St. Kilda in August 1821 or 1822, and examined by Fleming; afterwards escaped. *Edinb. Phil. Journ.*, vol. x. p. 97; Fleming, "Hist. Brit. An.," 1828, p. 130, and Macgillivray, "Hist. Brit. Birds," vol. v. p. 361.

One picked up dead off Lundy Island, 1829. Moore, "Catalogue of the Web-footed Birds of Devon;" "Mag. Nat. Hist.," 1837, p. 361, and "Orn. South Devon," p. 293.

One taken alive, Waterford Harbour, May 1834, lived about five months in confinement: preserved in the Museum of Trinity College, Dublin. Thompson, *P. Z. S.*, 1835, p. 79, and "Nat. Hist. Ireland, Birds," vol. iii. p. 238.

One also on the coast of Waterford, about the same time, but not preserved. Thompson, *loc. cit.*

One picked up on the long strand of Castle Freke, Co. Cork, about February 1844, "having been water-soaked in a storm." Thompson, *loc. cit.*

Two seen in Belfast Bay, 23rd September 1845. Thompson, *op. cit.*; possibly Divers (*Colymbi*).

The last three records are of doubtful value. See Ussher, "Birds of Ireland," p. 358.

In addition to the instances above mentioned, two others are on record, both of which are undoubtedly mistakes. Fleming ("Hist. Brit. An.," p. 130) states that Bullock informed him that "a Great Auk was taken in a pond of fresh water two miles from the Thames, on the estate of Sir William Clayton in Buckinghamshire." The Great Auk, however, being incapable of flight, such an occurrence would be an impossibility, and the bird referred to was probably one of the Divers. Again, Messrs. Sheppard and Whitear, in their "Catalogue of Norfolk and Suffolk Birds" (1826),¹ state that they were assured by Sir William Hooker that a bird of this species was some years since killed near Southwold, Suffolk. Sir William Hooker, however, informed Professor Newton that he had no recollection of having made such a statement.

¹ *Trans. Linn. Soc.*, vol. xv. p. 61.

He may have referred to a Little Auk, *Mergulus alle*, and have been misunderstood.

Besides the sources of information above indicated, the following important articles relating to the history of this singular bird should be referred to:—Dr. Charlton, "On the Great Auk," *Zool.*, 1860, pp. 6883–6888; Professor Newton's "Abstract of Mr. Wolley's Researches in Iceland," *Ibis*, 1861, pp. 374–399; "On a Natural Mummy" of this bird, *P. Z. S.*, 1863, p. 435, reprinted *Zool.*, 1864, p. 9122, "The Gare-fowl and its Historians," *Nat. Hist. Review*, 1865, pp. 467–488; and "Existing Remains," *Ibis*, 1865, pp. 116, 336; 1870, pp. 256–261; "Owen on the Anatomy of *Alca impennis*," *Trans. Zool. Soc.*, 1865; Coues, "Monograph of the *Alcidæ*," *Proc. Acad. Nat. Sci. Philadelphia*, Jan. 1868; Steenstrup, "Materials for a History of *Alca impennis*" (a French translation from the Danish original), *Bull. Soc. Orn. Suisse*, 1868, tome ii. pp. 5–70; and, in the same volume, Fatio, "Remarks on Specimens existing in Switzerland," pp. 73–85; J. H. Gurney, "General Notes and Corrections of Thompson's account of Irish Specimens," *Zool.*, 1868, pp. 1442–1453, and 1869, pp. 1639–1643; Wyman, "Remains found in Kitchen-middens in Maine and Massachusetts," *Amer. Nat.*, 1868, pp. 561 and 622; Potts on an egg of *Alca impennis*, *Trans. N. Z. Inst.*, 1870, pp. 109–110; R. Gray, "Résumé of Scottish Records of the Species," "Birds W. Scotland," 1871, pp. 441–453. In the last-mentioned work will also be found an

allusion to the discovery, in 1864, of the remains of two Gare-fowls in a "kitchen-midden" on the coast of Caithness. Milne, "Relics of the Great Auk," *Field*, March 27, April 3 and 10, 1875 (subsequently reprinted in 8vo, pp. 16); Lucas, (1) "Expedition to Funk Island, with Observations on the History and Anatomy of the Auk," *Report U.S. Nat. Mus.*, 1887-88, pp. 493-529, and (2) "Animals Recently Extinct," *op. cit.*, 1888-89, pp. 609-649; Dr. J. A. Smith on the "Remains of the Great Auk found in Caithness," *Proc. Soc. Antiq. Scotland*, vol. xiii., 1879. A considerable number of bones have been found at White Park Bay, Antrim, and off the Waterford River. This bird must have been at one time quite common in Ireland.

Since the first edition of this Handbook appeared, Mr. Symington Grieve has published an important monograph on this bird (4to, Edinburgh, 1885, pp. 141, and Appendix, pp. 41), reviewed in *The Zoologist*, 1885, p. 390. Mr. Grieve subsequently published some "supplementary information" in octavo form in a Presidential Address to the Edinburgh Field Naturalists' Society, 1888.

In shape and colour the eggs of the Great Auk resemble large eggs of the Razor-bill, and measure on an average 4·9 in. by 2·75 in. Coloured figures of several in different collections may be found in the works of Thienemann, Bädcker, Hewitson, Meyer, Seebohm, and Symington Grieve above mentioned, as well as in two memoirs *Sur*

l'Alca impennis, by the late Baron d'Hamonville, published in *Mem. Zool. Soc. France*, 1888.

An egg of this bird which was purchased at auction by Sir Vauncey Crewe in Feb. 1894, has been since figured by Mr. T. Parkin in a paper on the Great Auk read to the Hastings and St. Leonards Natural History Society in June 1900, and subsequently printed at St. Leonards.

X GUILLEMOT. *Uria troile* (Linnæus). Pl. 26, figs. 16, 17. Length, 18 in.; bill, 1·9 in.; wing, 7·5 in.; tarsus, 1·5 in.

This bird, known in Orkney and elsewhere as the *Scout*¹ (see p. 258), may be seen in the tideway of the open sea all round the coast at almost any time of year, but is most conspicuous during the breeding season, when assembling in myriads on the cliffs. During the month of June thousands of eggs of the Guillemot are taken from the cliffs on the coast of Yorkshire. See the descriptions of "egging" given by Messrs. Carter (*Zool.*, 1884, p. 438), and Clarke (*Field*, Oct. 6, 1900). Mr. R. Drane of Cardiff has published an excellent series of sixteen coloured plates, in which are shown forty-eight of the more striking varieties of the eggs of this bird, and sixteen varieties of the Razor-bill (*Trans. Cardiff Nat. Soc.*, 1898–99).

The old birds transport the young before they can fly from the ledges whereon they are hatched to the sea below, by carrying them in the hollow

¹ "In our mother tounge named the *Skout*."—BP. LESLIE, 1578.

of the back between their slightly elevated wings, and on reaching the surface with them at once dive, leaving the young one to float on the surface (*Zool.*, 1875, pp. 4342, 4666).¹

The legs and toes of the Guillemot are not, as stated by Yarrell, dark brownish-black, membranes olive, but smoky flesh colour, the webs darker smoke colour. In this respect Gould's plate is inaccurate, the legs and toes being much too dark. The weight of an adult bird is 2 lbs. 5 oz.

A curious and rare variety of this bird, having the bill and feet yellow, was shot in Poole Harbour, Dorsetshire, by Mr. T. M. Pike in December 1876, and was exhibited by Prof. Newton at a meeting of the Zoological Society on January 2, 1877. (See *Field*, Dec. 16, 1876, and *Zool.*, 1877, p. 57.) Another specimen was taken at Scarborough on Dec. 4, 1897 (*Field*, Jan. 1, 1898).

The so-called RINGED GUILLEMOT (*Uria ringvia*, *leucophthalmus*, or *lacrymans*, as it has been variously styled) is now regarded as a variety of the common species, from which it differs only in having a white line encircling and extending behind the eye. (See Newton, *Zool.*, 1852, p. 3425, and Wolley, *Zool.*, 1852, p. 3477; also Newton, "Dict. Birds," p. 149, footnote.)²

Müller, in his "Bird-fauna of the Færoes," says, "This is certainly but a variety of *troile*, for I have

¹ The Wood Duck of Australia transports her young in the same way (*Field*, May 29, 1897).

² An analogous variation is sometimes, but rarely, met with in the Razorbill (*Field*, March 23, 1872).

watched the one pairing with the other, and have seen a Ringed Guillemot feeding a young one which a Common Guillemot had under her wing." Mr. Harvie-Brown has witnessed a similar thing ("Fauna of the Outer Hebrides," pp. 160-161). See also Gray, "Birds of the West of Scotland," p. 424.

In his recently published volume, "Eastward from Petsora," Mr. H. J. Pearson reproduces a photograph of a group of Brünnich's Guillemot in one of its breeding haunts, a species which, from its rarity in this country, will be found included in the second part of this Handbook.

BLACK GUILLEMOT. *Uria grylle* (Linnæus). Length, 13 in.; bill, 1·4 in.; wing, 6·5 in.; tarsus, 1·25 in.

Resident in the Hebrides, Orkney, and Shetland (where the local name is *Tystie*), on some parts of the Scottish coast, and in Ireland. In 1886 Mr. Ussher found it breeding and obtained the eggs on the coast of Waterford (*Zool.*, 1886, p. 370). It is occasionally found upon the Welsh cliffs, and used formerly to breed on the coast of Pembrokeshire as well as in Anglesey; but it is believed that none now breed south of the Isle of Man (Mathew, "Birds of Pembrokeshire," p. 122). One was washed ashore on the coast of Merionethshire, near Towyn, on Nov. 11, 1894, after rough weather (*Zool.*, 1895, p. 22). On the east and south coasts of England it is now of rare occurrence, though formerly a few pairs used to breed at Flamborough Head, Yorkshire, whence I

received in the summer of 1863 an adult bird in full breeding plumage. It was sooty black all over with the exception of a white patch on the wing; the inside of the mouth, legs, and feet, vermilion-red. After the autumn moult the dorsal plumage becomes mottled, and the under parts nearly white. The sexes, as in the Common Guillemot, are externally indistinguishable. This bird lays *two* eggs, generally in some niche or crevice; the Common Guillemot lays but *one* on an exposed and bare ledge.

ORDER XIII. STEGANOPODES¹

Fam. PELECANIDÆ.

CORMORANT. *Phalacrocorax carbo* (Linnaeus). Pl. 32, figs. 3, 4, 4*a*. Length, 36 in.; bill, 2·75 in.; wing, 13 in.; tarsus, 2·5 in.

Resident and generally distributed, but most numerous on the northern and western coasts.

In the summer plumage, assumed in March, the top of the head and greater portion of the neck are covered with long narrow white feathers, and there is a large patch of white on each flank. These are wanting in the winter plumage, and are lost by a gradual moult.

The eye, both in this species and the next, is

¹ The birds comprised in this Order, viz., Cormorants, Gannets, Frigate-birds, Tropic birds, and Pelicans, differ from all others in having all four toes connected by a web. See Pl. 32, fig. 4*a*.

of remarkable beauty, being of a bright emerald green.

Although the usual habit of this bird, as well as the Shag, is to breed on the ledges of sea cliffs, the Cormorant not only perches on trees, but even nests in them. This was formerly the case at Reedham in Norfolk, as noticed by Sir Thomas Browne (1682); around the decoy at Fritton in Suffolk, as mentioned by Richard Lubbock (1845), and at several fresh-water loughs in Ireland (*Zool.*, 1882, p. 67). On an island in a lake in the Mayo mountains a large colony of Cormorants breed annually in trees (yew, birch, and holly of great age), the nests being formed of coarse heather stems. These birds also nest on trees (ash) on Lough Key, Co. Roscommon. See Ussher, "Birds of Ireland," p. 153, where a photograph of the nests is reproduced.

On the Farne Islands I found Cormorants breeding on the ground, the huge nests of seaweed so accessible that I had only to stoop to pick up the eggs. At the Horster Meer in Holland, Seebohm found Cormorants' nests in willow bushes (*Zool.*, 1880, p. 460). The birds themselves were there "in hundreds," as well as a large flock of Spoonbills. In 1882 a pair of Cormorants which had been trained for fishing by Capt. F. H. Salvin were temporarily deposited by him in the Zoological Gardens, Regent's Park, where, to the surprise of every one, they paired, made a nest, and reared their young (*Field*, May 27, 1882).

Having had frequent opportunities of observing

trained Cormorants fishing, I can confirm the statement made by my old friend F. H. Salvin (*Ibis*, 1891, p. 150), that these birds never use their wings under water, as Guillemots and Razorbills do. Mr. A. H. Evans is mistaken in his assertion to the contrary ("Cambridge Nat. Hist. Birds," 1899, p. 78).

For a long chapter on the history and practice of fishing with trained Cormorants, see my "Essays on Sport and Natural History," 1883.

A remarkable peculiarity has been observed in the nostrils of the Cormorant. Although at first open in the young, the nares become closed so soon as the bird is able to take to the water and feed itself, and ever after remain so: it then breathes through the mouth. (See Cossar Ewart, *Journ. Linn. Soc. Zool.*, 1881, p. 455; Lucas, *The Auk*, vol. xiv. p. 87, and Pycraft, *Journ. Linn. Soc. Zool.*, 1899, p. 207.) After continued submersion whilst fishing, these birds may be seen perched, drying their extended wings, and with their mouths wide open for inhalation.

The weight of a Cormorant is from $7\frac{1}{2}$ to 8 lbs.

GREEN CORMORANT or SHAG. *Phalacrocorax cristatus* (Faber). Pl. 32, fig. 5. Length, 30 in.; bill, 2.5 in.; wing, 10.5 in.; tarsus, 2.25 in.

So called from the Gaelic *seabhag*, a hawk, pronounced *she-ag*. Resident, but not so numerous as the last named, except perhaps in the northern and western isles of Scotland. In the Dorsetshire cliffs, however, it entirely takes the place of its

larger relative. I found many pairs breeding there in May and June 1864 (*Zool.*, 1865, p. 9675). The time of laying appears to be very uncertain. I saw young birds that could fly, others that could not, eggs, and empty nests on the same day. Unlike the Cormorant, the Shag has not been found nesting away from the sea.

The changes of plumage which this bird undergoes have been minutely described by Mr. Blake Knox (*Zool.*, 1866, pp. 243, 328). In the breeding plumage it has a semi-erect crest, curved slightly forward, the longest feathers measuring two inches. This is absent in the winter plumage. The number of tail-feathers in the Shag is twelve; in the Cormorant, fourteen. In 1884 an albino shag was killed in Shetland (*Zool.*, 1884, p. 342).

Weight, 4 to 5 lbs.

GANNET or SOLAN GOOSE. *Sula bassana* (Linnæus).

Pl. 32, figs. 1, 2, 2a. Length, 36 in.; bill, 3.95 in.; wing, 19 in.; tarsus, 2.25 in.

It has been pointed out by Prof. R. Cunningham in an excellent article on this bird (*Ibis*, 1866, pp. 1-23), that in the *Anglo-Saxon Chronicle* (A.D. 975) allusion is made to the sea as *the ganote's bath*. The name Gannet, according to Prof. Newton ("Dict. Birds") is from an old base, *gan* (German *gans*), which also supplied the Greek *χην* and the Latin *anser*. Solan, he adds, "is no doubt from the Scandinavian *sula*, whatever that may mean." On this it may be remarked that Solan is presumably the Icelandic

sûla-n, i.e. *sula* (gannet) + *n* (the), the article being suffixed, as usual in Scandinavian languages. John Major, writing of the Bass Rock in 1521, refers to "the multitude of great ducks" there, "which for the sake of distinction are called *solans*." Hector Boece in 1527 alludes to "the crag callit the Bas," on which might be seen "an incredible noumer of *soland geis*," and mentions also Ailsa Craig, "quhair siclik plente of *soland geis* is." Bishop Leslie in 1578 refers to "a sey guse, commonlie now ane *solande guse*," adding, "in the Basse they abund maist, in Elissa nocht sa mekle." Farther on he again mentions Ailsa, which "abundes in *solend geis*, and monie uthiris sey foulis." Donald Munro in 1549 writes of Elsay and its "aboundance of *soland geese*," but in his description of the isles of Rum and Eigg calls them "*solan geise*." Here we have an early example of the modern spelling, a curious variation of which, namely, *Sollem goose*, is to be found in the Household Book of Lord William Howard of Naworth, 1633. By Willughby and Ray, in 1678, the bird is called the *Soland goose*. The modern variation *Solent goose*, suggesting a false derivation, cannot be defended.

The Gannet is a resident species, and at its breeding stations extremely numerous. These are:—Lundy Island, in the Bristol Channel; Grassholme Island, Pembrokeshire, N.W. of Milford Haven; Ailsa Craig, off Ayrshire; St. Kilda, in the Outer Hebrides; Suliskerry, to the west of Hoy, in Orkney; the Stack, 40 miles west of Stromness; the Bass Rock,

in the Firth of Forth ; the Bull Rock, off Dursey Head, Co. Cork ; the Fastnet Rock, Cape Clear ; and the Skellig Islands, off the coast of Kerry. It is stated to have nested also on the Stags of Broadhaven, Co. Mayo (*Zool.*, 1884, pp. 473-481).

Mr. Ussher writes that the Gannets are more plentiful on the Little Skellig than on the Bull Rock ; but this may be open to doubt, seeing that in the breeding season of 1899 there were estimated to be from 500 to 700 nests (*Irish Nat.*, 1899, p. 251). A great many of the birds were driven away from the latter place by the blasting that was carried on during the erection of the lighthouse.

As to the building materials used by Gannets, the assertion of Willughby (1678) that these birds do not make their nests of sticks and straws, but lay their eggs on the naked rocks, has been controverted by Dr. Walker ("Essays on Nat. Hist.," Edinburgh, 1808, p. 287) who states that they make use of sticks, and his remarks have been confirmed by later observers. On the Bass Rock the Gannets build large nests of seaweed and dry grass, built up as incubation proceeds.

The late E. T. Booth of Brighton established some Gannets on a private salt-water pool specially prepared for the purpose, and having placed some large boulders of rock therein, succeeded in getting them to breed there and rear their young (*Zool.*, 1890, p. 94). He afterwards restored both old and young to liberty by placing them in a boat and rowing them out to sea.

The mode of fishing adopted by the Gannet when following a shoal of herrings or pilchards has been well described by Robert Chambers (*Zool.*, 1875, p. 4342). The device of capturing these birds by fixing a fish on a floating board, on which they dive and break their necks, is a very ancient one, and is repeatedly mentioned by old writers. See Willughby's "Ornithology," p. 349.

The weight of a Gannet is about $8\frac{1}{2}$ lbs.

ORDER XIV. GAVIÆ

Fam. LARIDÆ.

COMMON TERN. *Sterna fluviatilis*, Naumann. Pl. 33, fig. 1. Length, 14·25 in.; bill, 1·75 in.; wing, 10·5 in.; tarsus, 0·85 in.

This bird was long regarded as the *Sterna hirundo* of Linnæus; but the species described by him under that name is evidently the Arctic Tern, as may be inferred from his description of the bill:—"rostrum subulatum, versus apicem compressum, rectum, coccineum, uti et pedes."

It is a summer visitor to this country, generally arriving in the second week of May, and breeding on sandy shores and shingle beds all round the coast of England and Scotland, as far north as Skye on the west, and the Farne Islands and the Moray Firth on the east. Beyond this it comes into competition with the Arctic Tern, with which species it is found in the Outer Hebrides, as well as in Orkney. As a summer visitor to Scotland it is to



1. 2 Common Heron, ad. & juv. 3. 4. Purple Heron, ad. 5. Little Egret 6. Great White Heron. 7. Squacco Heron.
8. 9. Night Heron, ad. & juv. 10. Bittern. 11. 12. 12a. Little Bittern.

be found nesting on the pebbly shores of many inland lochs and islands, where its graceful evolutions on the wing, and its headlong plunges into the water when engaged in fishing, afford constant diversion to the observant angler.

In Ireland, the Common Tern, though numerous in summer, is rather local, breeding both on salt and fresh water, often in company with the Arctic Tern, and sometimes in close proximity to nests of the Black-headed Gull. Mr. Ussher has remarked that on marine islands the eggs of this bird are rarely laid before June, and are chiefly produced during that month; but on inland lakes the Common Tern breeds earlier, and the full complement of eggs may sometimes be found before the end of May. Where grass is abundant on their breeding-ground, these birds make their nests in it, but these are seldom more than mere depressions. During its migrations in spring and autumn the Common Tern often comes up the rivers from the coast, and wanders inland to fresh-water pools and reservoirs, including the ornamental waters in the London parks. By the middle of September the majority have left us for the winter.

ARCTIC TERN. *Sterna hirundo*, Linnæus. Pl. 33, fig. 2. Length, 14·5 in.; bill, 1·5 in.; wing, 10·25; tarsus, 0·75 in.

This is the sea-swallow on which Linnæus bestowed the specific name *hirundo*. It is the *Sterna macrura* of Naumann, *Isis*, 1819, p. 1847;

Sterna arctica of Temminck, "Man. d'Orn." (1820), vol. ii. p. 742. Like the last-named, it is a summer visitor to the British Islands, arriving in May and departing in September, and is the northern representative of the commoner species found sporadically along the more southern portions of our shores. In June 1881, Mr. Eagle Clarke found both species breeding in countless numbers on the Longstone, one of the Farne Islands. In Ireland it breeds, in company with the Common Tern, on the islets in Lough Carra, Co. Mayo (A. G. More, *Zool.*, 1860, p. 6891), and there is usually a large breeding colony of the Arctic Tern on Horse Island, Brown's Bay, about twelve miles from Sligo; also on Lough Mask, on an island off Cushlough (Warren, *Irish Nat.*, 1896, pp. 150-151).

When near enough to be clearly distinguished, it may be known from the Common Tern by its shorter bill, which is wholly red, *i.e.* without a black tip, and by its longer outer tail feathers, as indicated by the specific name *macrura*. On closer inspection it will be found to have shorter legs than the common species. The young of both kinds have the dorsal plumage mottled and barred with buff; the bill yellow with a dark tip; the legs and feet at first yellow, then orange-brown, finally red.

ROSEATE TERN. *Sterna dougalli*, Montagu. Length, 15·5 in.; bill, 1·9 in.; wing, 9·25 in.; tarsus, 0·85 in.

A rare summer visitant. So named from the rosy colour of the underparts in the breeding season, and

in honour of a correspondent of Colonel Montagu, Dr. M'Dougall of Glasgow, who first discovered it as a British bird frequenting the Cumbræes in the Firth of Clyde. Montagu, to whom he sent a specimen, described and figured it in 1813 in the Supplement to his "Ornithological Dictionary." Selby subsequently found it breeding on the Farne Islands, where, in his day (1826), there was "a numerous colony which occupied a large space of ground near to that selected by the Arctic species, and a second station upon one of the 'Walmsies.'" A few pairs, recognised by their long tails and peculiar harsh cry, were seen in May 1863, when I visited the islands in company with the late Dr. Embleton. He had procured the eggs of this species there the previous year, two of which he gave me. In May 1864 I received another egg of this Tern, which was taken there by a friend at Newcastle who was in the habit of annually visiting the Farne Isles, and was well acquainted with the birds breeding there. In 1866 Mr. Saunders heard of a single nest of *Sterna dougalli* there, which contained three eggs (*Zool.*, 1866, p. 185). In 1880 and 1881 there were several pairs on the Noxies, and at least two pairs are known to have nested on these islands in 1892 (*Zool.*, 1893, p. 233). There is no breeding haunt in Ireland.

On Walney Island, on the coast of Lancashire, I saw Roseate Terns on the 31st May 1864, and found a nest containing two eggs, which from their elongated shape and characteristic markings were

believed to belong to this species, but were not satisfactorily identified (*Zool.*, 1864, p. 9156). The nest was composed of small pieces of driftwood and bits of sandgrass, while the other Terns laid their eggs in mere depressions of the sand.

On migration the Roseate Tern is occasionally met with in inland localities where it does not breed. For example, on Aug. 16, 1866, two of these birds visited Kingsbury Reservoir, one of which I shot. It proved to be an immature bird with the outer tail feathers not fully grown up, and the scapulars much mottled. The irides were hazel, the legs and feet brownish yellow. At Hunstanton, in 1880, one was shot on July 12, and was forwarded to the late Lord Lilford, who presented it to the Norwich Museum. See *Zool.*, 1897, p. 165.

Unlike the Common and Arctic Terns, the bill of this species when adult is black, with the gape orange; the legs and feet orange-red.

SANDWICH TERN. *Sterna cantiaca*, Gmelin. Pl. **33**, fig. 4. Length, 16 in.; bill, 2·5 in.; wing, 12 in.; tarsus, 1 in.

So named from the locality where it was first detected as a British bird by Mr. Boys of Sandwich. It is a summer visitant, but very local; seldom nesting far from salt water, though it has been found breeding in small numbers on low flat islands in Loch Lomond and Loch Leven. I have seen small colonies on the Farne Islands, and on Walney Island, off the coast of Lancashire, at both of which

places I obtained the eggs during the last week of May. These, two or three in number, very handsomely marked (some the colour of tortoiseshell) are laid on the bare ground, or in a slight depression amongst a small collection of driftwood.

In Ireland the Sandwich Tern is a regular summer visitor, chiefly to Killala Bay, Co. Mayo, on the west coast. Mr. R. Warren, who has observed it there for many years, has furnished some interesting details of its habits in Mr. Ussher's recently published "Birds of Ireland," noticing especially its wild flight and strange cry, so unlike that of other Terns. This I also remarked when invading its haunts above named. It soars to such a height as to become almost invisible, and would in consequence pass unnoticed but for its loud and harsh scream. It is at once distinguishable amongst other Terns on the same breeding-ground by its superior size, fuller wings, the expanse of which is 2 ft. 9 in., black bill with yellow tip, and black legs and feet.

LESSER TERN. *Sterna minuta*, Linnæus. Pl. 33, figs. 3, 3a. Length, 9·5 in.; bill, 1·4 in.; wing, 6·75 in.; tarsus, 0·75 in.

A summer visitant, but local in its distribution. Protected in Norfolk and at Spurn Point, where in 1900 there were at least one hundred pairs nesting. Breeds on the North and South Bull rocks, Dublin Bay.

This species may be known from the Common and Arctic Terns by its smaller size, yellow bill with black tip, and orange-coloured legs.

For remarks on its habits as observed on Walney Island, Lancashire, where I have found the eggs, see *Zool.*, 1865, p. 9161, and in Norfolk, Trevor-Battye, "Pictures in Prose," 1894, p. 162.

During the period of its migration in spring and autumn the Lesser Tern, like others of its congeners, appears on the Thames and on the waters of the London parks. In April 1886 two were obtained at Tring Reservoir, and three were seen there, Sept. 10, 1895. It appears regularly in spring and autumn (for a few days only) on the reservoirs at Kingsbury and Elstree, as well as on the Thames at a considerable distance from the mouth of the river.

A Lesser Tern which was winged at Southend in August 1879 was carried home alive and kept all through the winter until the following May. It became quite tame, and would come when called.

BLACK TERN. *Hydrochelidon nigra*, Linnæus. Pl. 33, figs. 7, 8, 8a. Length, 10 in.; bill, 1.25 in.; wing, 8.5 in.; tarsus, 0.6 in.

Formerly a regular summer visitant, breeding in the marshlands of the eastern counties; now a spring and autumn migrant, ascending the rivers from the coast, sometimes to a considerable distance inland.

In 1824, according to the Rev. Leonard Jenyns (*Obs. Nat. Hist.*, p. 193), this bird was nesting in Cambridgeshire, in Bottisham and Swaffham Fens. "Immense flocks," he says, "appeared during that

summer, which happened to be a very wet one." On the 8th July he found a nest containing two eggs which were in a forward state for hatching. The nest was placed on the ground, about the size of a saucer, quite flat, and composed of roots and dry grass trodden down so as to be quite firm and compact. The eggs, barely an inch and a half in length, were of an olive colour, thickly spotted and blotched with deep brown, especially towards the larger end. On the 8th of June 1853 three nests (two with three eggs and one with two) were taken in Feltwell Fen, and, according to Professor Newton, these were the last eggs that were laid in West Norfolk (*Trans. Norf. Nat. Soc.*, vol. v. p. 567).

On referring to my notebooks, I find that the dates on which I have noted Black Terns on migration at Kingsbury Reservoir were the following:— 1863, April 25, Aug. 7; 1864, April 29, Aug. 11; 1865, May 7, Sept. 2; 1866, May 4, Aug. 9; 1867, April 27, Aug. 3 and 4; 1868, several in Sept.; 1870, May 23, Oct. 7; 1871, May 12,¹ 13, 15, 23; 1872, Aug. 10; 1874, April 26, May 1; 1879, Aug. 18, I saw one on the Thames at Sunbury (*Zool.*, 1879, p. 383). In 1895 Black Terns were observed at Tring, Marsworth, and Wilstone Reservoirs on April 17 and 20, May 6, Aug. 7 and 17. On May 7, 1896, a pair were seen at Kingsbury Reservoir. This shows the persistency with which birds continue to travel along the old lines of migration. On the wing this bird may be readily

¹ Several were shot on this day, and a Whimbrel.

distinguished by its small size, its dark colour, and short tail. It weighs but 3 oz., or little more than a Jack Snipe.

KITTIWAKE. *Rissa tridactyla*, Linnæus. Pl. 34, figs. 5, 6, 6a. Length, 15·5 in.; bill, 1·75 in.; wing, 12 in.; tarsus, 1·4 in.

A local resident; to a certain extent migratory, quitting its breeding haunts as soon as the young are able to fly, and coming into the estuaries of large rivers, up which both old and young often ascend for some distance.

Mr. Howard Saunders has noted colonies of the Kittiwake Gull on Lundy Island, off North Devon, the Scilly Islands, Wales, the Isle of Man, Flamborough Head, and the Farne Islands, all of which I have likewise seen; on the east coast of Scotland, at the Bass Rock, which I visited on my way to the Farne Islands, the Isle of May, and Dunbuy in Aberdeenshire; while in the Orkneys, Shetlands, and Hebrides, thousands of these birds whiten the precipices. The "gullery" on the Shiant Isles is said to be the most extensive in Great Britain.

On the loftier headlands of Ireland, especially in the north and west, the Kittiwake is extremely common in summer. Mr. R. Lloyd Patterson mentions it as found breeding in enormous numbers at Horn Head, in Donegal, on Rathlin Island, and on Ailsa Craig ("Birds of Belfast Lough," p. 136).

On the Yorkshire coast, at Smeeton, Bempton, and Flamborough, Kittiwakes were formerly very numerous in the breeding season; but during the

last twenty-five years have considerably decreased in numbers (*Field*, Oct. 20, 1900). Although a few eggs may be found during the first week of May, it is not until the third week of that month that the birds generally begin to lay. The egg-gatherers usually commence work about May 21, and collect the eggs of Gulls and Guillemots all through the month of June.

The Kittiwake has been reported as breeding in the cliffs of Dorsetshire and the Isle of Wight, but the only gulls I have ever seen there in the breeding season were Herring Gulls. These were common enough, and during the last week of May I had no difficulty in obtaining as many of their eggs as I cared to take, with the aid of two fishermen, an iron crowbar, and a few fathoms of rope.

The Kittiwake may be known from the Common Gull in any plumage by the absence of a hind-toe. (See Pl. 34, fig. 6*a*.)

BLACK-HEADED GULL. *Larus ridibundus*, Linnæus.

Pl. 34, figs. 7, 8. Length, 15·5 in.; bill, 1·75 in.; wing, 11·75 in; tarsus, 1·75 in.

A local resident, generally distributed throughout the year on the flat portions of the coast, frequenting the mudflats and neighbouring marshes and often coming inland to follow the plough or to feed in the water-meadows, a favourite resort when the water is not too deep.

In the spring this gull becomes still more gregarious, and hundreds come inland to breed *in*

colonies on marsh-land, usually where some measure of protection is afforded them. The nests are placed on the ground, and often close together. Just as the Black Tern is a marsh-haunting species in the nesting-time, differing in this respect from the commoner Terns, which breed on the seashore, so the Black-headed Gull differs in this respect from the cliff-haunting species of *Larus* which are to be found breeding within sight and sound of the sea, on rocky ledges and precipitous cliffs.

The breeding haunts of the Black-headed Gull in England are almost too numerous to mention. I have visited colonies in Essex, Kent, Sussex, Hants, Dorset, Norfolk, Lancashire, and Northumberland, and have heard of several in other counties. See my article on "Gulleries," *Field*, Feb. 2 and 16, 1884. In winter these birds are quite common on the Thames, and fearlessly visit the ornamental waters in the London parks, sojourning there often for many weeks, being well fed by visitors. In Scotland and Ireland, owing doubtless to the wider extent of unreclaimed bog land, there are many more "gulleries" of this kind, and the birds are proportionately more numerous throughout the country at the close of the breeding season.

LITTLE GULL. *Larus minutus*, Pallas. Length, 11 in.; bill, 1.25 in.; wing, 8.75; tarsus, 1 in.

An irregular visitant in autumn and winter; in some years, as in 1866, 1868, and 1869, particularly numerous on the east coast of England. The indivi-



1. 1a. Coot. 2. 2a. Moorhen. 3. Spotted Crake. 4. Baillon's Crake. 5. Little Crake. 6. 7. 8. Corncrake. 9. Water Rail.
10. 10a. Crane. 11. 12. Puffin. 13. 14. Razorbill. 15. 15a. Little Auk. 16. 17. Guillemot.

duals obtained are usually birds of the year or adults in winter plumage, but in February 1870, after prolonged easterly gales, the proportion of adults to immature birds was reversed, and the former were remarkably numerous. The nearest breeding haunts of the Little Gull, according to Mr. Howard Saunders, are probably those in the morasses of Esthonia, and between Lake Ladoga and Archangel. In a very few instances the Little Gull has been found here in breeding plumage, that is to say, with head and upper portion of the neck black. One with the black head fully developed was shot on the sands at Fraserburgh, Aberdeenshire, June 28, 1854 (T. Edward, *Nat.*, 1854, p. 226); a second, seen in company with it, escaped. Another specimen was obtained at Churt, near Frensham, in February 1875 (*Zool.*, 1875, p. 4459). In Oct. 1889 a *white* variety was obtained off Flamborough Head (*Zool.*, 1890, p. 19).

The Little Gull is a rare bird in Scotland (see "Fauna of Sutherland," p. 231), but is met with irregularly along the east coast, and less frequently on the west, as far north as Skye. Three have been obtained in the Solway Firth, in Oct. 1893, Jan. 1894, and Sept. 1896 (*Zool.*, 1894, p. 115; 1896, p. 385); and two in Mid-Wales in Oct. 1891 (Salter, *Zool.*, 1895, p. 250). In Ireland, according to Mr. Ussher, this bird occurs as an irregular visitant in autumn and winter. It has been met with in Guernsey (*Zool.*, 1885, p. 262). The weight of one shot in Rye Harbour, Sussex, was $4\frac{1}{2}$ oz.

COMMON GULL. *Larus canus*, Linnæus. Pl. 34, figs. 3, 4. Length, 17·5 in.; bill, 1·85 in.; wing, 14·5 in.; tarsus, 2·25 in.

The term "common" is not generally applicable to this Gull, which in many places is far less numerous than the Kittiwake. I know of no breeding-place of *Larus canus* in England. The Kittiwake is often mistaken for it in the nesting-time. In Scotland it is resident and abundant the whole year round on the west coast, the Hebrides, Orkney, and Shetland; retiring to the hill lochs to breed, which it usually does in colonies like *Larus ridibundus* ("Fauna of Sutherland," p. 231).

In Ireland, according to Mr. Ussher, the Common Gull is resident, but confined in its breeding range to the coast region of the north and west. It wanders over the rest of Ireland in winter, when its numbers are probably increased by immigration.

ICELAND GULL. *Larus leucopterus*, Faber. Length, 22 in.; bill, 2·4 in.; wing, 16 in.; tarsus, 2·35 in.

A winter visitant; not uncommon on the northern and eastern coasts of Scotland, but less frequently seen in England. Adult birds are not so often met with as those in immature plumage.

In Ireland this gull is an uncertain visitor in winter, occurring in small numbers. When seen at close quarters it may be distinguished from the Herring Gull, which it nearly equals in size, by its white wings. Relatively it bears much the same

proportion to the Glaucous Gull that the Lesser Black-backed Gull does to the Greater Black-backed species.

HERRING GULL. *Larus argentatus*, Gmelin. Pl. 34, fig. 1. Length, 24 in.; bill, 3 in.; wing, 17·5 in.; tarsus, 2·5 in.

Resident, and common at all seasons on the coast; the most widely distributed of all our Sea Gulls. Breeds commonly on the Dorsetshire cliffs, and south-west coast generally. In Scotland it breeds inland on the lochs, nesting side by side with *Larus fuscus* ("Fauna of Sutherland," p. 232), and in Ireland it is regarded as generally distributed.

Albino specimens are very rare. One was taken at Weston-super-Mare, January 18, 1896 (L. Hutton, *Field*, January 25, 1896). Hybrids between this species and the Lesser Black-backed Gull have been reported (Cecil Smith, *Zool.*, 1881, p. 450, and 1883, p. 174). For remarks on Gulls feeding upon grain, see *Field*, Sept. 23, 1893.

THE YELLOW-LEGGED HERRING GULL (*Larus cachinnans*, Pallas) which supersedes *Larus argentatus* in the Mediterranean (*Zool.*, 1894, p. 58), has once been recognised in this country, one having been shot in Breydon Harbour, Yarmouth, in Nov. 1886 (*Zool.*, 1897, p. 572). The typical Herring Gull of the British Islands has the legs and feet flesh colour, like the same parts in the Great Black-backed Gull, from which it may be readily distinguished by the pale grey colour of the mantle.

GLAUCOUS GULL. *Larus glaucus*, Gmelin Length,
25 in.; bill, 2·5 in.; wing, 18·5 in.; tarsus, 2·75 in.

A winter visitant from the Arctic regions, more numerous in Shetland, Orkney, and the east coast of Scotland, where most of those met with are birds of the year.

From the measurements above given, it will be seen that the Glaucous Gull is nearly as large as a Great Black-backed Gull, but with a pale grey mantle like the Herring Gull, and white wings. A pure white example of this species was shot in March 1865 on the little island of Birnbeck, off Weston-super-Mare. It was originally recorded as an Ivory Gull (*Zool.*, 1865, p. 9566), but the mistake was subsequently rectified and a second specimen of the kind was reported (*tom. cit.* p. 9784). A third example of this variety was obtained also at Weston-super-Mare, where, according to the Rev. Murray A. Mathew, the species in winter is not very rare, coming into the bay with countless other gulls after the sprats. The late John Gatcombe, an observant naturalist long resident in Plymouth, considered the Glaucous Gull to be not uncommon in winter in the waters of South Devon, where he observed it to linger until quite late in the spring, the latest date noted by him being April 30th, in Plymouth Sound (*Zool.*, 1875, p. 4491). From its size and courage, this fine gull is the tyrant among the wild-fowl and sea-fowl of the Arctic seas, preying upon the smaller species (especially on the Little

Auk), and on account of this ruling habit is known to whalers as "the Burgomaster."

GREATER BLACK-BACKED GULL. *Larus marinus*,
Linnæus. Length, 28 in. ; bill, 2·6 in. ; wing, 19·5 in. ;
tarsus, 3 in.

Resident, but more particularly confined to the north and west coasts, and more abundant in Scotland, where it breeds on the hill lochs, usually in pairs, but sometimes in colonies (Harvie-Brown and Buckley, "Fauna of Sutherland," p. 233).

In Ireland, according to Mr. Ussher, a few pairs breed on the cliffs and islands off Donegal, Dublin, Wexford, Waterford, Cork, Kerry, Galway, and Mayo, and there are larger colonies on the Cow Rock, off Dursey Head, as well as on the Bell Rocks, off Achill, Co. Mayo.

Mr. Howard Saunders is of opinion that the adult plumage is not attained until the bird is in its fifth year, and even then the amount of white on the two or three outer primaries continues to increase with age. For a description of the changes of plumage observed in a bird of this species, which was kept in the author's garden for three years, see the "Birds of Middlesex," pp. 263-265.

The weight of an adult bird, shot in Pagham Harbour, Sussex, I found to be 3 lbs. 4 oz. The expanse of wing, 5 feet.

As to the former value of Gulls in Sussex, see *Zool.*, 1891, p. 194.

LESSER BLACK-BACKED GULL. *Larus fuscus*, Linnaeus. Length, 22 in.; bill, 2·5 in.; wing, 16·25 in.; tarsus, 2·5 in.

Resident; more numerous in the north, being very common on the west coast and in the Hebrides. Breeds in numbers about the hill lochs of the east of Scotland, and often away from the lochs on the flow ground ("Fauna of Sutherland," p. 232). I have taken the eggs on the Farne Islands, and Mr. Willis Bund has found this species breeding in South Wales. Other nesting haunts are Lundy Island, and the north coast of Devon, by Bolt Head.

In Ireland the Lesser Black-backed Gull breeds in colonies on the sea cliffs and islands off Donegal, Antrim, Wexford, Waterford, Cork, Kerry, Clare, Galway, Mayo, and Sligo, and next to the Herring Gull is the most abundantly distributed species in the breeding season. On the Bog of Allen, in Co. Kildare, between Edenderry and Rathungan, a small colony was found nesting in June 1898 (Palmer, *Irish Nat.*, 1898, p. 186).

The Lesser Black-backed Gull, when near enough to be seen clearly, may be recognised by its bright yellow legs; the Greater Black-backed Gull has the legs and feet flesh colour, as in the Herring Gull, the two last-named differing in the colour of the mantle, which in the former is dark slate colour, in the latter pearl grey.



1 (2/3)



2 (1/3)



3 (1/3)



4 (1/3)



5 (4/5)



6 (4/5)



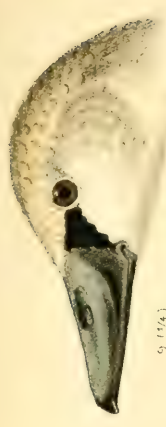
7 (1/3)



8 (1/5)



9 (1/4)



10 (1/4)



11 (1/4)



12 (1/4)



13 (1/4)

1. 1st. Grey-lag Goose. 2. Bean Goose. 3. Whitefronted Goose. 4. Pinkfooted Goose. 5. Bernicle Goose. 6. Brent Goose. 7. Redbreasted Goose. 8. Mute Swan. 9. Polish Swan. 10. II. Bewick's Swan. 11. Whooper.

GREAT SKUA. *Lestris catarractes* (Linnæus). Pl. 35, figs. 9, 9a. Length, 22 in.; bill, 2·5 in.; wing, 15·5 in.; tarsus, 2·75 in.

The name of this bird is said to be derived from its cry *skui-skui* ("Fauna of Sutherland," p. 235). Sixty years ago there were three separate breeding stations in the Shetlands: one is now completely deserted, and in the other two (Unst and Foula) the birds which resort there to nest are now being as much as possible protected.

But for the protection afforded in the nesting season by Mr. Thomas Edmonston in Unst, and the difficulty of reaching the distant island of Foula by bird collectors, the species would have been extinct as a British bird years ago. See Mr. R. M. Barrington's report on the Great Skua in Foula, as observed in June 1890 (*Zool.*, 1890, pp. 297, 354, 391, 434), and an article by Prof. Newton (*Field*, March 21, 1891). See also a letter from Mr. Thomas Edmonston on the protection of this bird in Unst in *The Times*, August 1, 1891, reprinted in Messrs. Evans and Buckley's "Fauna of Shetland," 1899, in which last-mentioned work will be found the most complete account yet published on the status of the Great Skua as a British species, with a full-page illustration of a nest containing one egg and a nestling.

The Great Skua is supposed to have nested formerly in Orkney, but the late Mr. Reid of Wick, writing to me in November 1876, stated that he

had only known two instances of the Great Skua having been met with in Orkney during the previous forty years, namely, one shot near Kirkwall, and another near Stromness. Messrs. Buckley and Harvie-Brown in their "Fauna of the Orkney Islands," 1891, mention a few additional instances of its occurrence there, the latest having been seen at Stromness in November 1887.

Towards the approach of winter this species migrates southward from its breeding haunts in Iceland, the Faröes, and Shetland, and it is at this season of the year that it is most frequently met with on our coasts. In Ireland it is a very rare visitor in autumn.

RICHARDSON'S or ARCTIC SKUA. *Lestris crepidatus* (Gmelin). Pl. 35, figs. 6, 7. Length, 20 in.; bill, 1·5 in.; wing, 13 in.; tarsus, 1·25 in.

Breeds in Sutherland and Caithness, and in all three groups of the Scottish Isles. Migrates to the more southern British coasts after the breeding season. For some interesting remarks on this species by Mr. L. Edmonston see *Edinb. Phil. Journ.*, vol. vii. (1822), and Buckley and Evans' "Fauna of the Shetland Islands," 1899, pp. 196–198. These authors remark:—"The form of the Arctic Skua with *white* underparts is quite as common in Shetland as the *sooty* race, if not more so; and T. Edmonston, jun., who had every facility for observing the birds, tells us that even the nestlings differ greatly in their tints. The two

forms mate indiscriminately, though pairs which match in colour are perhaps the most common."

BUFFON'S SKUA.¹ *Lestris parasiticus* (Linnæus). Pl. 35, fig. 5. Length, 22 in.; bill, 1·5 in.; wing, 12 in.; tarsus, 2 in.

An occasional visitant, chiefly in autumn, sometimes in considerable numbers, as in 1879 and 1880. According to Robert Gray (p. 499), this bird used formerly to breed in Caithness and also in Shetland, but it is not unlikely that the Arctic Skua may have been mistaken for it. At all events the statement in question remains unsupported by any evidence. See Buckley and Harvie-Brown, "Fauna of Caithness," 1887, p. 236. A good account of the breeding habits of this species, as observed in Lapland, will be found in Wheelwright's "Spring and Summer in Lapland," pp. 355-359. The measurements above given were taken by me from a freshly killed specimen shot in Skye, May 6, 1897.

POMATORHINE SKUA. *Lestris pomatorhinus*, Temminck. Pl. 35, fig. 5. Length, 21 in.; bill, 1·75 in.; wing, 14·25 in.; tarsus, 2 in.

The specific name of this bird is generally written "pomarine," "*pomarinus*;" but, as pointed out by Mr. Sclater, the above is the correct orthography, from *πῶμα*, *πῶματος*, *operculum*, and *ῥίς*, *ῥινὸς*, *nasus*. It was first noticed as a British bird

¹ *Stercorarius longicaudus*, Vieillot, Gould, and Newton (*Ibis*, 1865, p. 511). *Lestris buffoni*, Boie, Bonaparte, Hewitson, and originally Yarrell.

in 1819 in the sale catalogue of Bullock's Museum, wherein a specimen was included as "an undescribed Gull, much allied to the Arctic, but greatly superior in size: killed at Brighton." Since that date the species has been generally recognised, and found to occur sporadically in autumn, chiefly on the east coast, where in the autumn of 1879, and again in October of the following year, an unusual number of these birds were observed. During a gale on Dec. 22, 1894, a bird of this species was shot on the river Eden near Carlisle (Macpherson, *Zool.*, 1895, p. 22).

On the south coast a few sometimes remain during the winter, and occasionally are driven inland by storms. Of late years the Pomatorhine Skua has been noticed in some numbers every summer in the Hebrides (Harvie-Brown and Buckley, "Fauna of Sutherland," p. 235). It is believed to breed usually on the tundras of Asiatic Siberia, where, in lat. 74° N., Middendorf found the eggs, and Mr. Popham in 1895 found nests near the mouth of the Yenesei.

ORDER XV. TUBINARES

Fam. PROCELLARIIDÆ.

MANX SHEARWATER. *Puffinus anglorum* (Temminck). Pl. 35, fig. 4. Length, 15 in.; bill, 1·75 in.; wing, 9·5 in.; tarsus, 1·75 in.

The name Shearwater is an appropriate one, for the birds of this genus have a peculiar mode of

flight which distinguishes them at once from other Petrels, as well as from Gulls and Terns. They fly into and through the water without alighting on the surface to plunge, as Guillemots and Razorbills do, and in this way pursue and capture small fish with great swiftness. The crepuscular habits of Shearwaters and Petrels is another characteristic trait which distinguishes them from other sea-fowl. The Manx Shearwater owes its distinctive name to its former abundance in the Isle of Man. Ray named it the Puffin of the Isle of Man, and, like the Puffin, it nests in holes and crevices instead of on the bare ledges of cliffs.

It breeds in Orkney, Shetland, St. Kilda, and the Outer Hebrides, North Wales, Isle of Man, Caldy Island, Skomer, Skokham, Lundy Island, and the Scilly Isles. In Ireland, according to Mr. Ussher, the largest breeding colonies are on the Skelligs and Puffin Island in Kerry, and on Rathlin Island and Arranmore in Donegal. Mr. R. M. Barrington has taken the eggs on the Saltees, and there are a few points along the coast of Wicklow and Dublin where a very limited number nest.

With these numerous breeding stations it is not surprising that the Manx Shearwater should be found widely dispersed around the British Islands throughout the year, and it is one of the commonest sea-birds to be driven inland by storms, often to a considerable distance from the coast. One has been picked up exhausted after a gale in Warwickshire, *i.e.* in the very centre of England, and I have seen

many that have wandered up the Thames a long way from the mouth of the river, even into the midst of the metropolis.

The weight of an adult bird is about 14 oz.

LEVANTINE SHEARWATER. *Puffinus yelkouanus* (Acerbi). Length, 15.25 in.; bill, 1.9 in.; wing, 10 in.; tarsus, 1.9 in.

This is the Mediterranean representative of our Manx Shearwater, and there is reason to suppose that it may be met with annually on the south and east coasts of England, though from its resemblance to our bird it is probably often overlooked. An example which I obtained at Torbay, Devon, in August 1875, is in the British Museum, as also a second specimen procured about the same time in Plymouth Sound. Since then several have been obtained on the Yorkshire coast, off Scarborough, in Feb. 1899 and Oct. 1900. It is a larger bird than the Manx Shearwater, browner in colour, and has the flanks and under tail-coverts dusky-brown.

GREATER SHEARWATER. *Puffinus major*, Faber.¹
Length, 18 in.; bill, 2 in.; wing, 12.75 in.; tarsus, 2.25 in.

An annual visitant in autumn to the coasts of Devon and Cornwall, and to the Scilly Isles; met with accidentally, and at uncertain intervals, farther eastward, as in Swanage Bay and Poole Harbour, Dorsetshire; Seaford, in Sussex; Debden, Essex

¹ *Puffinus gravis*, O'Reilly, "Greenland," 1818, p. 140, pl. xii.

(once), Norfolk (*Zool.*, 1897, p. 131, not noticed by Stevenson), Suffolk (Southwell, *Zool.*, 1899, p. 31), Lincolnshire (Cordeaux, p. 211), Yorkshire (Clarke and Roebuck, p. 86), Durham, one at Teesmouth, and two off the Northumberland coast (Hancock, p. 136).

As to its occurrence in Scottish waters, see Newton, *Ann. Scot. Nat. Hist.*, 1900, p. 142. It was observed to be abundant off Rockhall in June (Harvie-Brown and Barrington, *Trans. Roy. Irish Acad.*, xxxi.), and at St. Kilda in August (*Ann. Scot. Nat. Hist.*, 1898, p. 238). Yet its breeding haunts are still undiscovered.

In Ireland the Greater Shearwater is a regular visitor to Dingle Bay and the south-west coast, where it has been most often observed in August and September, although in one year many remained in Dingle Bay from September until the beginning of November (*Proc. Dubl. Nat. Hist. Soc.*, 1855, p. 83). This Shearwater's mode of fishing, as described by Mr. R. Warren, is characteristic: "While in full flight close along the surface, and without the slightest pause, they dash into the water with a splash, and disappear for some moments, reappearing a few yards farther on. This they continue to do while beating to and fro over the spot where the fish were, like sporting dogs quartering a field for game."

FULMAR. *Fulmarus glacialis* (Linnæus). Pl. 35, fig. 1.

Length, 18·5 in. ; bill, 2 in. ; wing, 13·25 in. ; tarsus, 2 in.

Breeds in the Outer Hebrides, and notably at St. Kilda, on Borera and Soa, formerly also on the

south isles of Barra. In June 1878 about a dozen pairs nested on Foula (*Zool.*, 1879, pp. 380, 422). It has now spread to Papa Stour, Esha Ness, and Unst, and had reached the Noup of Noss by the summer of 1898 (Saunders, *Manual*, p. 751).

After the breeding season the Fulmar migrates to the more southern British coasts, but keeps a good deal out to sea.

Between October 1878 and December 1885 at least fifteen specimens of the Fulmar were obtained off Yarmouth (*Trans. Norf. Nat. Soc.*, iv. 1886, p. 223). Hancock has noticed four which were captured by hand on fishing-boats off Scarborough, these birds being very fearless in seizing fish when the nets are drawn, and this accords with the experience of the Greenland whalers, to whom the Fulmar is known as the "Mollymoke."

In Ireland this bird is regarded as a rare and accidental visitor in autumn, but almost all the specimens obtained there have been found cast up along shore after stormy weather.

The weight of an adult Fulmar in good condition is about 16 oz.

X STORM PETREL. *Procellaria pelagica*, Linnæus.¹ Pl. 35, figs. 2, 2a. Length, 6·5 in.; bill, 0·6 in.; wing, 4·75 in.; tarsus, 0·9 in.

Breeds in the Channel and Scilly Islands, on Lundy Island, the Calf of Man, Ailsa Craig, Iona,

¹ The genus *Procellaria*, with *P. pelagica* as its type, having been founded by Linnæus in 1766 (*Syst. Nat.*, i. 212), there can be no doubt that this generic name should have precedence of *Thalassidroma* of

Staffa, and Treshnish, in Skye, and in all three groups of the Western and Northern Isles. Mr. J. H. Gurney was informed that it breeds on small islands off the coast of Pembrokeshire, although this has not been confirmed by Mr. Murray Mathew in his volume on the birds of that county.

In Ireland this bird breeds on Mutton Island, Miltown Malbay, Co. Clare (*Field*, Aug. 15, 1863), and according to Mr. Ussher in great numbers off the Kerry coast, on the Skelligs, the Blasquets, Puffin Island, and Scariff. It is probably this species, and not *P. leachii*, as has been asserted, which nests on Slyne Head.

LEACH'S PETREL. *Procellaria leachii*, Temminck.

Pl. 35, fig. 3. Length, 8·5 in.; bill, 0·75 in.; wing, 6 in.; tarsus, 0·9 in.

The Fork-tailed Petrel, named after an English naturalist, breeds at St. Kilda in the Outer Hebrides, where it was first noticed as a British bird by Bullock in 1818. Messrs. Harvie-Brown and Buckley report it as breeding on Borera, Mingalay, Barra, and North Rona, as well as in the Isle of Rum. A view of one of its nesting haunts on North Rona forms the subject of a full-page plate ("Fauna of the Outer Hebrides," p. 154). In Mingalay Mr. H. J. Elwes found it breeding in holes and cracks in the dry peat on the top of the cliffs.

Vigors, which, based upon the same type, was not founded until 1825 (*Zool. Journ.*, vol. ii. p. 405). Yet the generic name *Thalassidroma* is employed by Jardine, Bonaparte, Naumann, Gould, Gray, Macgillivray, and other authors of repute.

This bird is described by R. Gray as "strictly a western species in Scotland," although there is no evidence of its breeding in the Inner Hebrides, and two instances only of its occurrence on the east coast are recorded by him. In Ireland it has been repeatedly obtained in autumn and winter; and, according to Thompson, it was accurately described as breeding, in 1833, on rocky islets near Slyne Head, Galway. Mr. Ussher states that it breeds on the Blasquets, Co. Kerry, and on the Great Skellig as well as on other islands off the coasts of Kerry and Mayo ("Birds of Ireland," p. 386).

On the English coasts it is not uncommon in the fall of the year, at which season, after a prevalence of north-westerly gales, it is often met with inland at a considerable distance from the sea.

A single example of the MADEIRAN FORK-TAILED PETREL (*P. cryptoleucura*, Ridgway; *P. castro*, Harcourt) was picked up dead on the beach at Littlestone, Kent, in Dec. 1895 (*Ibis*, 1896, p. 401), but this species has no claim to be included amongst the periodical migrants, or even amongst the rarer visitants to the British Islands.

PART II

RARE AND ACCIDENTAL VISITANTS

ORDER I. ACCIPITRES

Fam. VULTURIDÆ.

GRIFFON VULTURE. *Gyps fulvus* (Gmelin). Length 40 in.; bill, 3·75 in.; wing, 30 in.; tarsus, 4·5 in.

Hab. Southern Europe, North Africa, Western Asia.

One caught on the rocks near Cork Harbour, spring 1843 : Thompson, "Nat. Hist. Irel. (Birds)," i. p. 84; Yarrell, "Hist. Brit. Birds;" Ussher, "Birds of Ireland," p. 119. Preserved in the Museum, Trinity College, Dublin.

EGYPTIAN VULTURE. *Neophron percnopterus* (Linnaeus). Length, 25 in.; bill, 2·75 in.; wing, 19·25 in.; tarsus, 3·5 in.

Hab. Southern Europe, Africa, Western Asia.

Two seen, one shot, Kilve, Somersetshire, Oct. 1825 : Yarrell, "Hist. Brit. Birds;" seen in the possession of Dr. Matthew, a son of the original owner.

One, Peldon, Essex, Sept. 28, 1868 : Bree, *Zool.*, 1868, p. 1456; Christy, "Birds of Essex," p. 162. Figured by Gould in his "Birds of Great Britain."

Fam. FALCONIDÆ.

SPOTTED EAGLE. *Aquila nœvia* (Gmelin). Length, 24·5 in.; bill, 1·75 in.; wing, 19·7 in.; tarsus, 3·5 in.

Hab. Central and Southern Europe, North Africa, Syria, India.

One, Horn Head, Donegal, 1831 : Thompson, "Nat. Hist. Ireland (Birds)," vol. i. p. 14.

- One, Valentia Island, Kerry, May 1840: Weaver, *Zool.*, 1846, p. 1246.
- Two near Youghal, Cork, Jan. 1845: Thompson, *Ann. Nat. Hist.*, 1845, p. 351; Ussher, "Birds of Ireland," p. 125. One in Museum, Trinity College, Dublin.
- One, Lundy Island, 1858: Mathew, *Zool.*, 1861, p. 7380.
- One, Hawks Tor, Cornwall, Dec. 4, 1860; Rodd, *Zool.*, 1861, p. 7311, and "Birds of Cornwall," p. 3.
- One, Carnanton, St. Colomb, Cornwall, Oct. or Nov. 1861: Rodd, *Zool.*, 1861, p. 7817, and "Birds of Cornwall."
- One, Somerley, Hants, Dec. 28, 1861: Wise, "New Forest," 1867, p. 313. Expanse of wing, 6 ft.; weight, 8 lbs.
- One, taken alive, Elmstead, near Colchester, Essex, Oct. 29, 1891: Laver, *Zool.*, 1891, p. 470.
- One, Sudbourne Hall estate, near Wickham Market, Suffolk, Nov. 4, 1891: Pratt, *Zool.*, 1892, p. 25.
- One, Leigh, near Southend, Essex, Nov. 3, 1891: Miller Christy, *Zool.*, 1892, p. 76. In collection of Hon. W. Rothschild. Figured by Lord Lilford.

Obs. The late Mr. J. H. Gurney, who examined the two Cornish specimens of the Spotted Eagle above noticed, was of opinion that they were referable to *Aquila clanga*, Pallas (*Ibis*, 1877, p. 332).

GYRFALCON. *Falco gyrfalco*, Linnæus. Pl. 2, fig. 3.
Length, 20 in.; bill, 1·3 in.; wing, 14·5 in.; tarsus, 2 in.

Hab. Northern Europe, extending across Northern Asia and North America, migrating southwards in autumn.

One, Mayfield, Sussex, Jan. 1845: in collection of W. Borrer. Recorded as an Iceland Falcon, Ellman, *Zool.*, 1851, p. 3233; identified as *Falco gyrfalco* by Gurney, *Zool.*, 1884, p. 271; and since figured by Borrer, "Birds of Sussex," p. 5.

One, immature, Orford, Suffolk, Oct. 14, 1867: Babington, "Birds of Suffolk," p. 231, with figure from photograph; Seebohm, "Brit. Birds," vol. i. p. 19.

One, Thetford Warren, Norfolk, spring 1883: Babington, *op. cit.*, p. 254. In his collection.

One, Hatfield Broad Oak, Essex, Dec. 1891: trapped with a decoy pigeon by keeper, and seen stuffed in his possession, July 21, 1897.

Obs. Of the Greenland and Iceland Falcons, it would seem that the former has occurred more frequently in Great Britain than the latter; but in many instances the two species have not been distinguished. As it is now impossible, without actual examination of the specimens, to name correctly all the large white Falcons which have been recorded as obtained in this country, those only can be here noticed which have been seen and identified by competent authorities.

For important remarks on the distinguishing characters, habits, sequence of plumage, and geographical description of these Falcons, reference may be made to Hoy, *Mag. Nat. Hist.*, vol. vi. p. 108; Hancock, Brit. Assoc. Reports, 1838, p. 106; *Ann. Nat. Hist.*, vol. ii. p. 241 (1839); *Ann. and Mag. Nat. Hist.*, 2nd ser., vol. xiii. p. 110 (1854); *Ibis*, 1862, pp. 43-53; Newton, *Ootheca Wolleyana*, pp. 85-98; Yarrell, "Hist. Brit. Birds" (4th ed.), vol. i. pp. 36-52; and Sharpe, *Proc. Zool. Soc.*, 1873, p. 417.

GREENLAND FALCON. *Falco candicans*, Gmelin.

Length, ♀ 23 in.; bill, 1·5 in.; wing, 16·25 in.; tarsus, 2·25 in.

Hub. Northern Europe and America; Iceland; Siberia.

One, Pembrokeshire: Yarrell, "Hist. Brit. Birds." In the British Museum.

One, Port Eliot, St. Germans, Cornwall: Rodd, "Birds of Cornwall," p. 7. In his collection.

One, The Lizard, Cornwall: Rodd, *l.c.* In possession of Mr. Humphrey Grylls, of Helston.

One, Bungay Common, Suffolk: Hunt, "British Ornithology," figured; Sheppard and Whitear, "Norfolk and Suffolk Birds;" *Trans. Linn. Soc.*, vol. xv. p. 2.

One near York, Feb. 1837: Hancock, letter to W. Thompson, "Nat. Hist. Irel. (Birds)," i. p. 31.

One, Sutton-on-Derwent, Yorkshire, Feb. 5, 1837: Wood, *Nat.*, 1837, p. 53.

Two, Dunfanaghy, Donegal, Feb. 1837, and 1842: Thompson, "Nat. Hist. Irel. (Birds)," i. p. 31. Ussher, "Birds of Ireland," p. 136.

One, Beeston, near Cromer, Feb. 1848: Stevenson, "Birds of Norfolk," i. p. 8.

One, Trimingham, Norfolk, Nov. 1851: Buxton, *Zool.*, 1851, pp. 2983 and 3028 (name of locality misprinted).

One, Robin Hood's Bay, Nov. 25, 1854: Roberts, *Zool.*, 1855, p. 4558. In the Scarborough Museum.

One, Dechmont, Lanarkshire, 1835: Gray, "Birds of West of Scotland," p. 21.

One, Foss, Loch Tummel, Perthshire, spring 1862. In the collection of E. Clough Newcome.

Two, Islay, Feb. 1838 (Hancock) and autumn 1862 (Gray). Harvie-Brown, "Fauna Argyll," p. 109.

Several in the Hebrides: Gray, *op. cit.*, pp. 20-22.

Two, Shetland, Feb. 18, 1863, and March 3, 1866: Saxby, *Zool.*, 1863, p. 8484, and 1866, p. 288. Recorded as an Iceland Falcon. See Evans and Buckley, p. 118.

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1. 2. Duck & Mallard. 3. 4. 4a. Shoveller. 5. 6. Teal. 7. 8. Garganey. 9. Gadwall. 10. 11. Wigeon.
12. 13. Pintail. 14. 15. Shield-drake.

One, Ireland, spring 1863: Blake Knox, *Zool.*, 1863, p. 8523.

Recorded as an Iceland Falcon.

One, Rathlin, co. Antrim, March 9, 1865. Seen and identified by Mr. Howard Saunders.

One, Islay, winter 1867. Identified by Mr. H. J. Elwes.

One near Beaully, Inverness-shire, winter 1871: R. Gray, *op. cit.* In the collection of Mr. R. M. Barrington.

One on the Skelligs, Sept. 28, 1887. In the collection of Mr. R. M. Barrington.

One picked up dead on the Llanbedo Estate, Ruthin, April 1, 1876: Dobie, "Birds of Cheshire," p. 315.

One, Balsdean, Sussex, Sept. 26, 1882: T. J. Monk, *Zool.*, 1883, p. 34, and Gurney, p. 80; Borrer, "Birds of Sussex," p. 6. In collection of Mr. Monk.

One on the Black Rock, co. Mayo, Nov. 9, 1883.

One, Black Rock, co. Cork, Nov. 23, 1883: Ussher, "Birds of Ireland," p. 137.

Two, Teraght Rock, March 23 and April 2, 1884. In the Dublin Museum.

One, Moville, co. Donegal, Nov. 1, 1887. In the British Museum.

One, Glenmore, Donegal, Sept. 13, 1882: Ussher, p. 137.

One in Achill, Dec. 12, 1891: Barrington, *Zool.*, 1892, p. 77.

One near Annestown, coast of Waterford, winter 1893-94. In the collection of Mr. Ussher.

Obs. In the Greenland Falcon the general colour is *white* marked with brown, and with no bars on the flanks. In the Iceland Falcon the ground colour of the upper plumage is *ash-grey*, each feather barred and tipped with white, and flanks barred. In the Greenland bird the beak is *yellowish-white* at all ages; in the Iclander it is always dark. For remarks on the sequence of plumage, see Sharpe, *Proc. Zool. Soc.*, 1873, p. 417; and for notes on Irish specimens of the Greenland Falcon, see Warren,

Field, May 15, 1875, and Ussher, "Birds of Ireland," p. 135. The last-named author states that in the winter, 1883-84, no fewer than eight were obtained in Ireland; one in Cork, two in Kerry, two in Mayo, and three in Donegal, besides others which were seen the same season.

ICELAND FALCON. *Falco islandus*, Gmelin. Length, 22 in.; bill, 1·4 in.; wing, 14·5 in.; tarsus, 2·3 in.

Hab. Northern Europe; Iceland; Greenland; Labrador; and Alaska.

One, Marston Moor, Dec. 1836. In collection of C. Oxley.

One, Normanby, near Guisborough, Yorkshire, March 1837: Hogg, *Zool.*, 1845, p. 1052.

One, Winton, near Kirkby Stephen, Westmorland, in 1842: Goodechild, *Trans. Cumberl. Assoc. Lit. Sci.*, pt. vi.

One, Bellingham, Northumberland, January 1845: Bold, *Zool.*, 1845, p. 935.

One, Inverbroom, Ross-shire, May 1851: Bond, *Zool.*, 1851, p. 3275. In his collection.

Several in Scotland and the Hebrides: R. Gray, "Birds West of Scotland," pp. 22-23.

One, Poppleton, near York, Nov. 1860: Graham, *Zool.*, 1861, p. 7312. In the Leeds Museum.

One near Crossfell, Cumberland, Oct. 13, 1860: Duckworth, *Trans. Cumberl. Assoc. Lit. Sci.*, pt. viii. p. 206, figured. In the Newcastle Museum.

One, Filey Brigg, Oct. 4, 1864: Clarke, "Birds Yorkshire."

One near Thurso, Caithness, April 1, 1876: M'Nicol, *Field*, April 15, 1876.

One, Islay, 1876: Lumsden, *Proc. Nat. Hist. Soc. Glasg.*, 1876, p. 86.

Two seen, one shot, island of Herm, near Guernsey, 1876: Cecil Smith, *Field*, July 8, 1876.

One, Termoncarragh, near Belmullet, co. Mayo, Sept. 1879: A. G. More, *Zool.*, 1881, p. 488. In possession of Mr. H. I. Richards of Barnagh, Belmullet.

One, Ollaberry, near Lerwick, April 6, 1898: Harvie-Brown, *Ann. Scot. Nat. Hist.*, 1898, p. 1032.

Obs. In *The Zoologist* for 1870 (p. 2017), Mr. Rodd reported the capture of a young Iceland Falcon in the parish of St. Merryn, near Padstow. This proved to be a trained falcon of Lord Bute's, lost from Cardiff, and hung by its leash in a tree. "Birds of Cornwall" (p. 8) and letter from Capt. F. H. Salvin.

RED-FOOTED FALCON. *Falco vespertinus*, Linnæus.¹

Length, 11·5 in.; bill, 0·75; wing, 9·75; tarsus, 1 in.

Hab. Eastern and Southern Europe; Western Siberia; Palestine; Northern and Western Africa in winter.

One, Doncaster, April 1830, Foljambe, *Trans. Linn. Soc.*, vol. xvii. p. 553. Recorded as *Falco rufipes*.

Four, Horning, and Holkham Park, Norfolk, May 1830: Yarrell, *Mag. Nat. Hist.*, vol. iv. p. 116.

One, Littlecote Park, near Hungerford: Yarrell, "Hist. British Birds."

Two in Yorkshire, one in Durham, and one, Wembury, Devonshire: Yarrell, *op. cit.*

One, Wicklow, summer 1832: Thompson, "Nat. Hist. Irel. (Birds)," i. p. 50; More, "List Irish Birds," p. 6; Ussher, "Birds of Ireland," p. 146. In Museum of Science and Art, Dublin; the only Irish example known.

One, Breydon, Norfolk, 1832: Paget, "Sketch of the Nat. Hist. of Great Yarmouth," p. 3.

Two, Clermont, near Esher, Surrey: Meyer, "Illustr. Brit. Birds and their Eggs," vol. i. p. 47.

¹ *Falco vespertinus*, Linnæus, *Syst. Nat.*, i. p. 129 (1766). *Falco rufipes*, Beseke, *Vögel Kurlands*, p. 20 (1792).

- One near Norwich, August 1843: Stevenson, "Birds of Norfolk," i. p. 20.
- One in the Sheffield Museum, said to have been killed in the neighbourhood: Heppenstall, *Zool.*, 1843, p. 247.
- One, Stainer Wood, Selby, Yorkshire, May 1844: *Zool.*, 1844, p. 654. In the collection of the Right Hon. E. R. Petre.
- One, near Falmouth, Cornwall, April 1851: Bullmore, "Cornish Fauna," p. 9.
- One, Budock, Cornwall, May 1851: Cocks, "Contrib. Faun. Falmouth," *Nat.*, 1851, p. 163. Possibly this and the preceding record refer to the same specimen.
- One, Rottingdean, Sussex, 1851: Sharpe and Dresser, "Birds of Europe," vol. i.
- One, Buckingham, Jan. 1858: Clark Kennedy, "Birds of Berks and Bucks," p. 162.
- One, out of six or seven seen near Somerleyton, Suffolk, July 12, 1862: Stevenson, "Birds of Norfolk," i. p. 20.
- One near Hythe, Kent, summer 1862: Hammond, *Zool.*, 1862, p. 8192.
- One, mouth of the Humber, Nov. 1864: Boulton, *Zool.*, 1865, p. 9415. Cordeaux, "Birds of Humber District."
- One, Shrewsbury, no date: Rocke, *Zool.*, 1865, p. 9685.
- One, Bampton Cliffs, near Bridlington, Yorkshire, July 6, 1865. In collection of J. Whitaker, of Rainworth.
- One, Leicester, Jan. 1866: Widowson, *Field*, March 10, 1866. In the Leicester Museum.
- One, Foveran, Aberdeen, May 1866: Gray, "Birds of West of Scotland," p. 31.
- One, Helston, Cornwall, autumn 1867: Bullmore, MS., and Bidwell, "Visit to Scilly," *Trans. Norf. Soc.*, iv. p. 201.
- One, Yarmouth, Norfolk, May 16, 1868: Stevenson, *Zool.*, 1869, p. 1491.
- One near Wrexham, Denbighshire, May 1868: Kerrison, *Field*, May 23, 1868.
- One, Hauxley, Northumberland, Oct. 1868: Embleton, in Tate's "History of Alnwick," 1869.

- One, Bempton Cliff, Yorks., June 18, 1869: Cordeaux, "Birds of the Humber District," p. 5.
- One in collection of G. D. Rowley, *Field*, May 24, 1873.
- One, Titchfield, Hants, Oct. 25, 1875: Leggatt, *Field*, Oct. 30, 1875. In the collection of J. E. Harting.
- One, Eyton Bridge, Whitby, 1876 or 1877: Clarke, "Birds of Yorkshire," p. 17.
- One, Kinghorn, Fife, Sept. 20, 1880: Harvie-Brown, *Proc. Roy. Phys. Soc. Edinb.*, 1880. In the Edinburgh Museum.
- One, Swinside, near Jedburgh, June 21, 1888: Evans, *Proc. Roy. Phys. Soc. Edinb.*, 1889, p. 168. In Museum of Science and Art, Edinburgh.

LESSER KESTREL. *Falco cenchris*, Naumann. Length, 12.5 in.; bill, 0.75 in.; wing, 9 in.; tarsus, 1.25 in.

Hab. Southern and South-Eastern Europe, migrating in winter to South Africa.

- One, Suffolk, *Field*, Nov. 4, 1864, and Jan. 20, 1865.
- One, Wilstrop, near York, Nov. 1867: Clarke and Roebuck, "Handbook Yorks. Vert.," p. 48. In York Museum.
- One captured alive at Dover, May 1877: Gordon, *Zool.*, 1877, p. 298. In the Dover Museum.
- One near Shankill, co. Dublin, Feb. 17, 1891: More, *Zool.*, 1891, p. 152; Ussher, "Birds of Ireland," p. 148.
- One, Tresco, Scilly, March 1891: Jenkinson, *Zool.*, 1891, p. 153.
- One, Boynalie, Aberdeenshire, Oct. 25, 1897: Sim, *Ann. Scot. Nat. Hist.*, 1898, p. 51. Weight, $4\frac{1}{2}$ oz.; length, $11\frac{1}{2}$ in.

Obs. For remarks on the priority of the specific name *cenchris*, see Dresser, *Ibis*, 1875, p. 515.

AMERICAN GOSHAWK. *Astur atricapillus* (Wilson).

Length, 20·5 in.; bill, 1·4 in.; wing, 12·9 in.; tarsus, 2·9 in.

Hab. North America; rarer in the Southern States; of accidental occurrence in Europe.

One, Schehallion, Perthshire, spring 1869: R. Gray, *Ibis*, 1870, p. 292.

One, Ballinacourte, co. Tipperary, Feb. 1870: Sir Victor Brooke, *Ibis*, 1870, p. 538. In Museum of Science and Art, Dublin.

One near Parsons Town, King's County, shortly afterwards: A. B. Brooke, *Zool.*, 1871, p. 2524.

BLACK KITE. *Milvus migrans* (Boddaert¹). Length, 22 in.; bill, 1·5 in.; wing, 18 in.; tarsus, 2·25 in.

Hab. Europe, excepting Norway, Sweden, and Finland; Siberia; Palestine; Sinai; Africa; Madagascar.

One, Alnwick, Northumberland, May 11, 1866: Hancock, *Ibis*, 1867, p. 253; Gurney, *Zool.*, 1869, p. 1598.

Obs. Sir Robert Sibbald, in his "Scotia Illustrata," 1684, mentions "a black Gled" as formerly inhabiting Scotland. In Don's "Fauna of Forfarshire" (1813) also allusion is made (p. 39) to "*Falco ater*," found "on heaths and low hills." But this may have been with greater probability the dark variety of Montagu's Harrier.

¹ *Falco migrans*, Boddaert, Table Pl. Enl. p. 28 (1783). *Falco ater*, Gmelin, Syst. Nat., p. 262 (1788).

BLACK-WINGED KITE. *Elanus caeruleus* (Desfont.).

Length, 13·25 in.; bill, 1 in.; wing, 10·5 in.; tarsus, 1·4 in.

Hab. South-Eastern Europe; Africa; India, and Ceylon.

One, Bog of Horsetown, Beauparc, near Slane, co. Meath: Sir John Dillon, *Field*, April 17, 1875, and *Zool.*, 1875, p. 4455; *Ibis*, 1872, p. 471; and A. G. More, "List of Irish Birds," 1885, p. 6. In possession of Sir John Dillon, of Lismullen.

Obs. This bird is recognisable on the wing by its greyish-white colour with black wings, and its habit of hovering like a kestrel, which the common kite never does.

SWALLOW-TAILED KITE. *Nauclerus furcatus* (Linnaeus). Length, 21 in.; bill, 1·3 in.; wing, 16·25 in.; tarsus, 1·4 in.

Hab. Southern United States; Central and South America.

One, Ballachulish, Argyllshire, 1772: Dr. Walker, *Adversaria*, 1772, p. 87, and 1774, p. 153; Fleming, "Hist. Brit. An.," p. 52; Yarrell, "Hist. Brit. Birds."

One, Shaw Gill, near Hawes, Wensleydale, Sept. 6, 1805: Dr. Sims, *Trans. Linn. Soc.*, vol. xiv. p. 583.

One, Bishop of Winchester's Park, Farnham, Surrey, summer 1833: Holme, *Zool.*, 1856, p. 5042.

One, Eskdale, Cumberland, April 1853: Robson, *Zool.*, 1854, pp. 4166, 4366, 4406.

One said to have been shot on the Mersey, June 1843: formerly in Macclesfield Museum, but sold with other birds by auction at Stevens's, June 14, 1861, realising £9, 10s., *Field*, June 22, 1861.

Obs. Other specimens of this bird are said to

have been obtained in Yorkshire, near Helmsley, May 25, 1859, and in Bolton Woods forty or fifty years ago; *cf.* Clarke, "Birds of Yorks.," pp. 28, 29. But these records probably refer to the Fork-tailed Kite (*Milvus regalis*).

RED-SHOULDERED BUZZARD. *Buteo lineatus* (Gmelin). Length, 21 in.; bill, 1·4 in.; wing, 13·25 in.; tarsus, 3 in.

Hab. North America, east of the Rocky Mountains, from Texas to Northern Canada.

One, Kingussie, Inverness, Feb. 26, 1863: Newcome, *Ibis*, 1865, p. 549; Gray, "Birds of West of Scotland," p. 49.

Fam. STRIGIDÆ.

SNOW OWL. *Nyctea scandiaca* (Linnæus). Pl. 4, figs. 6, 6a. Length, 23 in.; wing, 17 in.; tarsus, 2·25 in.

Hab. Northern Europe, and Asia as far eastward as Amoorland; North America, and Greenland.

One, Shetland, spring 1812: Edmondston, *Mem. Wern. Soc. Edinb.*, 1822, p. 157. An adult male, presented by Edmondston to Bullock for his museum in Piccadilly, which was sold in 1819. See Evans and Buckley, "Fauna of Shetland," p. 108.

One, Unst, Shetland, Sept. 1813: Yarrell, "Hist. Brit. Birds."

One, Felbrigg, Norfolk, spring 1814, after a severe winter: Hunt, "Brit. Orn." (1815), p. 148.

One, Gunton, Norfolk, Jan. 1820: Hunt, in Stacey's "History of Norfolk" (1829). In the collection of Lord Suffield.

Two, Rothbury and Elsdon, Northumberland, Jan. 1823: Selby, "Illus. Brit. Orn.," i. p. 96; Hancock, "Catalogue Birds of Northumberland," p. 20.

- One, Inchigeela, 1827: Harvey, "Fauna of Cork," p. 5.
- Several in Ireland: Thomson, "Nat. Hist. Irel. (Birds)," i. p. 95. Ussher has records of thirty at various dates. See "Birds of Ireland," p. 117.
- One, Sanday, Orkney, April 1835: Neill, *Mag. Nat. Hist.*, viii. p. 508. Several since noticed by Buckley and Harvie-Brown, "Fauna of Orkney," p. 138.
- One, Barlow Moor, near Selby, Yorkshire, Feb. 13, 1837: Denny, *Mag. Zool. and Bot.*, ii. p. 93. In the Leeds Museum. For other instances in Yorkshire, see Clarke and Roebuck, "Handb. Yorks. Verteb.," p. 41.
- One near Devonport, Dec. 1838: Bellamy, "Nat. Hist. Devon.," p. 200; D'Urban and Mathew, p. 134.
- One, St. Germans, Cornwall, 1838: Julian, *Nat.*, vol. i. p. 45, and Rodd, "Birds of Cornwall," p. 308.
- One, St. Andrews, near Bungay, Suffolk, Feb. 19, 1847: Gurney, *Zool.*, 1847, p. 1769; Babington, "Birds of Suffolk," p. 231.
- One seen, Swannington, Norfolk, autumn 1849: Stevenson, "Birds of Norfolk," i. p. 58.
- One, Beeston, near Cromer, Jan. 22, 1850: Gurney, *Zool.*, 1850, p. 2765. Stevenson, *op. cit.*
- One, St. Faith's, Norfolk, Feb. 1850: Gurney, *l.c.*
- One, Altnaharrow, Sutherland, Oct. 1855: Sir Wm. Milner, *Zool.*, 1855, p. 4594; Harvie-Brown, "Fauna of Sutherland," p. 162.
- One, Killala, co. Mayo, Jan. 26, 1856: Warren, *Zool.*, 1877, p. 237, and Ussher, *op. cit.*
- Five, Hebrides, 1857: Graham, *Zool.*, 1857, p. 5831.
- One, Ballycroy, autumn 1859: Newton, *Zool.*, 1861, p. 7415.
- Several, Shetland: Saxby, *Zool.*, 1863, p. 8633; 1864, p. 9318. An excellent account of this species is given by Saxby, "Birds of Shetland," pp. 38-54.
- One, Kilmarnock, Ayrshire, Feb. 1863: Gray, "Birds of West of Scotland," p. 62.
- Several in Caithness, 1867-1868: Harvie-Brown, "Fauna of Caithness," p. 162.

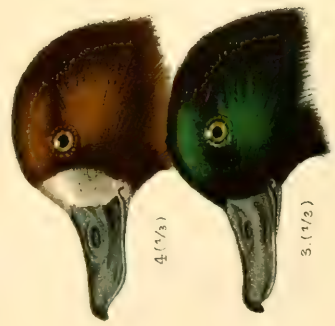
- One captured on a vessel off Montrose, Dec. 1867: Harvie-Brown, *Zool.*, 1868, p. 1058. Weight, $4\frac{1}{2}$ lbs.
- One, Lochness, Inverness-shire, Oct. 1868: Gray, *op. cit.*
- One, Beauly, Inverness-shire, Aug. 21, 1869: Von Hügel, *Zool.*, 1869, p. 1863.
- One, Dovein, co. Mayo, March 18, 1871: Ashby, *Field*, April 8, 1871.
- One, Southrepps, Norfolk, Dec. 4, 1871: J. H. Gurney, jun., *Zool.*, 1872, p. 2912.
- One, Freswick, Caithness, 1876: Harvie-Brown, "Fauna of Caithness," p. 162.
- One near Lack, co. Fermanagh, Feb. 1876: Murray, *Field*, March 4, 1876.
- One shot at Ditsworthy Warren, near Barnstaple, Devon, March 1876: Rowe, *Field*, April 1, 1876. And another trapped ten days later on Exmoor: D'Urban and Mathew, "Birds of Devon," p. 135. In the collection of Sir Frederick Knight.
- One, Burnham Overy Marshes, Norfolk, Nov. 2, 1876: Gould, *Field*, Nov. 18, 1876; Stevenson, *Zool.*, 1877, p. 98.
- One, in Lewis, Hebrides, Nov. 1876: Rocke, *Zool.*, 1877, p. 177.
- One, Shurrery, Caithness, April 4, 1881. In the collection of Mr. J. G. Millais.
- One, Inishtrahall Island, co. Donegal, Nov. 19, 1882: A. G. More, *Zool.*, 1883, p. 80.
- One, in Lewis, Aug. 25, 1890: Walters, *Zool.*, 1896, p. 140.
- One, Easington, Yorkshire coast, Sept. 27, 1891; Cordeaux, *Nat.*, 1891, p. 359, *Zool.*, 1893, p. 59.

Obs. Usually met with in autumn and winter, and so frequently as almost to deserve recognition in the first part of this Handbook. R. Gray considers ("Birds of West of Scotland," p. 62), that it "may almost be regarded as a regular spring visitant to the Outer Hebrides;" and ac-



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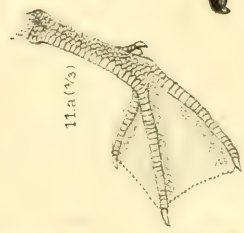
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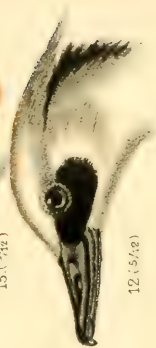
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1. 2. Longtailed Duck. 3. 4. Scaup. 5. 6. Poehard. 7. 8. Ferruginous Duck. 9. Goosander ad. ♂.
10. 11. 11a. Red-breasted Merganser. 12. 13. Smew.

according to A. G. More (*Ibis*, 1865, p. 16), it is reported to have nested in Orkney, Shetland, and the Hebrides. As to this, however, see the remarks of Messrs. Buckley and Harvie-Brown, "Fauna of Orkney," p. 138, and Messrs. Evans and Buckley, "Fauna of Shetland," p. 108.

For some interesting notes on the migration of the Snow Owl as observed between Quebec and Belfast, see *Ann. Nat. Hist.*, vol. iii. p. 107.

A Snow Owl which had carried off a nestling Peregrine was pursued by the parent falcon, overtaken, and killed at a single stoop. It was picked up by an eye-witness. Richardson, "Journal in Rupert's Land," vol. i. p. 206.

A pair of Snow Owls brought from Norway in 1891 nested in 1898, and reared two young ones in captivity (W. H. St. Quintin, *Avicultural Magazine*, Sept. 1898, p. 198). Some years previously a pair bred in an aviary of Mr. Edward Fountain of Easton, Norfolk. See *Ibis*, 1859, p. 273, and 1875, p. 517.

HAWK OWL. *Surnia funerea* (Linnæus). Length, 15·5 in.; wing, 9·5 in.; tarsus, 1 in.

Hab. Northern Europe, Asia, and America.

One, coast of Cornwall, March 1830: Thompson, *Proc. Zool. Soc.*, 1835, p. 77; Rodd, "Birds of Cornwall," p. 20.

One, Backwell Hill, near Yatton, August 25, 1847: Higgins, *Zool.*, 1851, p. 3029.

One, North Unst, Shetland, 1860: Crotch, *Zool.*, 1861, p. 7706; Gray, "Birds of West of Scotland," p. 64.

One, Maryhill, near Glasgow, Dec. 1863: Gray, *l.c.*

Two near Greenock, Nov. 1868, Dec. 1871: Gray, *l.c.*

One, near Amesbury, Wilts: Sharpe, *Proc. Zool. Soc.*, April 1876. Specimen exhibited.

One, Aberdeenshire, Nov. 7, 1898: G. Sim.

Obs. A note on the habits of the Hawk Owl, as observed by Wolley, will be found in *The Zoologist*, 1854, p. 4203. The long wedge-shaped tail and regularly banded under-plumage are peculiarities which serve to distinguish this species from others.

X LITTLE OWL. *Carine noctua* (Scopoli). Pl. 4, fig. 5.
Length, 9 in.; wing, 6·5 in.; tarsus, 1·5 in.

Hab. Central and Southern Europe.

One, North Devon, 1808: Montagu, "Orn. Dict. Suppl."

Two, Middleshaw, Westmorland, spring 1811: Graves, "British Ornithology," 1812, vol. i. (unpaged).

One, Flintshire: Pennant, "British Zoology," i. p. 211.

Two, London: Edwards, "Gleanings," i. p. 228.

A pair and nest near Norwich: Hunt, "Brit. Orn." (1815).

One, Blofield, Norfolk, 1824: Stevenson, "Birds," i. p. 59.

Two near Yarmouth: Paget, "Nat. Hist. Yarmouth," 1834, p. 4.

One taken alive at Derby, May 17, 1843: Briggs, *Zool.*, 1844, p. 645. The death of this specimen was noticed (*Zool.*, 1848, p. 2141) by John Wolley, who thought it might be one of those turned out by Waterton. See "Essays on Nat. Hist.," 2nd series, p. 17.

One, Fletching, Sussex, July 1843: Borrer, "Birds of Sussex," p. 33.

One, taken alive, Easton, Norfolk, 1846, lived in confinement until Dec. 1848: Stevenson, *op. cit.*

One taken alive at Maidstone, May 1856: Whitmore Baker, *Zool.*, 1856, p. 5159.

One caught in a rabbit burrow, Holmbush Park, near Horsham, March 27, 1871: Borrer, *op. cit.*

- One taken alive on board a fishing-smack 10 miles off Yarmouth, Feb. 6, 1862: Stevenson, *op. cit.*
- One, Sevenoaks, Kent, 1862. In collection of F. Bond.
- One, Draycot, Calne, Wilts, 1862: A. C. Smith, *Zool.*, 1866, p. 227, and "Birds of Wiltshire."
- One, Yorkshire: Yarrell, "Hist. Brit. Birds."
- One, Worcestershire: Hastings, "N. H. Worcester," p. 65.
- One, Ormskirk: Smith, "Nat. Hist. Mersey District," p. 48.
- One, Wiltshire: Rennie, Note to White's "Selborne," p. 34.
- One near Bristol: Yarrell, *op. cit.*
- One, Sunbury, Middlesex: "Birds of Middlesex," p. 21.
- One near Helston, Cornwall: Rodd, "List of Brit. Birds" (2nd ed.), p. 10; "Birds of Cornwall," p. 20.
- One, Chigwell, Essex, Jan. 2, 1865: Ward, *Field*, Jan. 14, 1865; Christy, "Birds of Essex," p. 161.
- One near Bury St. Edmunds, Feb. 1865: Stevenson, MS.
- One, Cambridge, "lately:" Farren, *Zool.*, 1867, p. 791.
- One, Welney, Norfolk, spring 1867: Stevenson, MS.
- One, Highgate Woods, Middlesex, Oct. 1870: seen by Mr. J. G. Keulemans, who, being well acquainted with the species in Holland, had no difficulty in recognising it.
- One, New Shoreham, Sussex, March 1877: Borrer, *Zool.*, 1877, p. 228, and "Birds of Sussex," p. 33.
- One, taken on board a fishing-boat off Scarborough, Nov. 1884: Whitaker, *Zool.*, 1885, p. 349.
- One, trapped, Seamer, near Scarborough, April 1884: Cordeaux, *Nat.*, 1885, p. 336.
- One, caught in a rabbit-trap near Thame, Oxfordshire, Nov. 11, 1891: Aplin, *Zool.*, 1892, p. 332.
- One, near Newark, Sept. 1896: Whitaker, *Zool.*, 1897, p. 329. In his collection.
- One, Dunmow, Essex, Oct. 22, 1900: Harting, *Proc. Linn. Soc.*, Nov. 1, 1900. Specimen exhibited.

Obs. In several instances Little Owls have been purposely turned out in different parts of the country, and have done well and nested, *e.g.* in

Hampshire, Yorkshire, and Northamptonshire, where, in June 1895, the late Lord Lilford was informed of three or four nests with eggs and young (*Zool.*, 1896, p. 54). At Lilford Hall a nest was found containing six eggs (*Zool.*, 1891, p. 46), and another with four eggs (*Zool.*, 1893, p. 90). A nest is reported to have been met with in the New Forest (Wise, "New Forest," p. 314), and the young have been taken and reared at Harrow (*Field*, Jan. 14, 1865).

The measurements above given were taken from the specimen brought to me from Dunmow, which measured in extent of wing 20 in. and weighed nearly 8 oz.; the iris pale straw-yellow, the pupil very large and black.

MOTTLED OWL. *Scops asio* (Linnaeus). Length, 10 in.; wing, 6·75 in.; tarsus, 1·5 in.

Hab. United States of North America and Canada.

One, Hawksworth Wood, near Kirkstall Abbey, summer, 1852: Hobson, *Naturalist*, 1852, p. 169, and figure; Yarrell, "Brit. Birds," 3rd edit.

One near Yarmouth, Norfolk: Stevenson, "Birds of Norfolk," vol. i. p. 44.

Obs. The occurrence of this American species in England in a truly wild state must be considered doubtful, and it has not been included by Prof. Newton in the 4th edition of Yarrell's "British Birds." The specimens above noted were possibly imported and escaped, or may have been designedly turned out, as in the case of the Little Owl.

SCOPS OWL. *Scops giu* (Scopoli). Length, 7·5 in.; wing, 5·9 in.; tarsus, 0·9 in.

Hab. Southern Europe; Western Asia; Northern Africa.

Two, Yorkshire (one near Weatherby), spring 1805: Montagu, "Orn. Dict. Suppl.," 1813.

One, Strumpshaw, Norfolk, June 1824: Stevenson, "Birds of Norfolk," vol. i. p. 43.

One near London, prior to 1833: Selby, "Illus. Brit. Orn.," vol. i. p. 93.

One, Brill, Bucks, spring 1833: Mathews, *Zool.*, 1849, p. 2596.

Two, Audley End, Essex, prior to Nov. 1837: Yarrell, *Mag. Nat. Hist.*, iii. p. 100, and "Hist. Brit. Birds."

One, Lougherew, Meath, prior to 1837: Thompson, "Nat. Hist. Irel. (Birds)," i. p. 85.

Two, Yarmouth, and two near Norwich: Gurney and Fisher, *Zool.*, 1846, p. 1304.

One, Scilly, April 11, 1847: Rodd, *Zool.*, 1847, p. 1773, and "Birds of Cornwall." Figured in Gould's "Birds of Great Britain."

One, Killiane, Wexford, April 1847: Poole, *Zool.*, 1848, p. 2019.

One, Fladbury, Worcestershire: Hastings, "Nat. Hist. Worcester," p. 65.

One near Golspie, Sutherland, May 1854: Gray, "Birds of West of Scotland," p. 56.

One, Ashdown, Berks, 1858: Gould, "Birds of Great Britain." This perhaps is the specimen said to have been taken at Kingston Lisle in 1858 (Clark Kennedy, "Birds of Berks and Bucks," p. 166).

One, beneath the lighthouse at Cromer, Nov. 27, 1861: Stevenson, "Birds of Norfolk," vol. i. p. 43.

One, Egton Bridge, near Whitby, 1865: Clarke, "Birds of Yorkshire," p. 52.

One near Pembroke, spring 1868: Dix, *Zool.*, 1869, p. 1671.

One near Maidstone. In the Dover Museum.

One, Carden Park, Cheshire, June 1868: Gould, *op. cit.*

One, Trevethoe, Cornwall, Jan. 1871: Rodd, *Zool.*, 1871, p. 2482, and "Birds of Cornwall," p. 21.

One, Renwick, Cumberland, May 15, 1875: Dryden, *Field*, May 22, 1875.

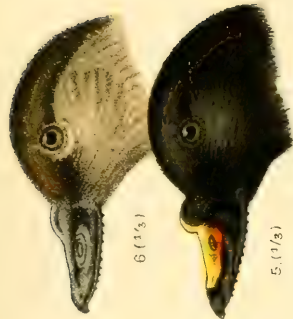
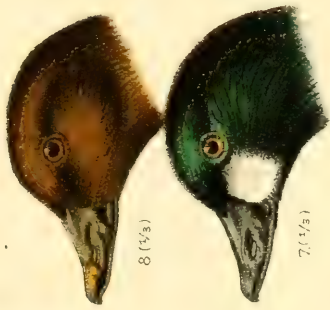
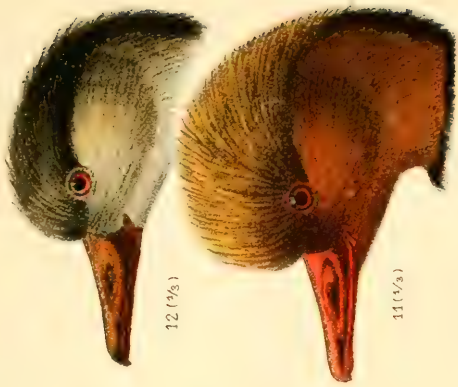
One caught alive, Belfast, Nov. 17, 1883: R. L. Patterson.

One, Foulk's Mills, co. Wexford, May 31, 1889: Williams, *Zool.*, 1889, p. 313. In the Museum of Science and Art, Dublin.

One, Walsingham Abbey, Norfolk, May 21, 1891: Feilden, *Zool.*, 1891, p. 315.

One, near Holt, Norfolk, Nov. 18, 1892: Gurney, *Zool.*, 1894, p. 84.

Obs. Messrs. Clark and Roebuck in their "Handbook of the Vertebrata of Yorkshire" (p. 42) refer to specimens of the Scops Owl obtained at Womersley, Ripley near Harrogate, Eshton Hall near Gargrave, Boynton near Bridlington, Driffild, Sandhutton, and Egton Bridge near Whitby. There is a specimen of the Scops Owl in the Dublin Museum, which (*fide* More) was in the collection of the late Mr. T. W. Warren. This little Owl is said to have nested near Oykel, Sutherlandshire (St. John, "Tour in Sutherland," vol. i. p. 122), and in Castle Eden Dene (Hogg, "History of Stockton-on-Tees," Appendix, p. 14, and *Zool.*, 1845, p. 1054), but in neither case were the birds properly identified. As to the first mentioned, there can be little doubt, from the description of the nest, that the species was the Short-eared Owl.

2 ($\frac{1}{3}$)1 ($\frac{1}{3}$)4 ($\frac{1}{3}$)3 ($\frac{1}{3}$)6 ($\frac{1}{3}$)5 ($\frac{1}{3}$)8 ($\frac{1}{3}$)7 ($\frac{1}{3}$)10 ($\frac{1}{3}$)9 ($\frac{1}{3}$)12 ($\frac{1}{3}$)11 ($\frac{1}{3}$)

1. 2. Eider Duck. 3. 4. Velvet Scoter. 5. 6. Common Scoter. 7. 8. Goldeneye. 9. 10. Tufted Duck.
11. 12. Redcrested Whistling Duck. ♂. ♀.

TENGMALM'S OWL. *Nyctala tengmalmi* (Gmelin).

Length, 9·75 in.; wing, 6·25 in.; tarsus, 0·9 in.

Hab. Europe and Northern Asia as far south as Nepal; North America.

One, Morpeth, Northumberland, 1812: Selby, "Illustr. Brit. Orn.," vol. i. p. 105.

One, Widdrington, Northumberland, Jan. 1813: Bewick, "Hist. Brit. Birds," i. p. 65 (erroneously named Little Owl); Hancock, "Cat. Birds Northumb."

One, Kent, May 1836: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. i. p. 163.

One, recently killed, purchased in London, 1836: Yarrell, *l.c.*

One, Sleigh, near Whitby, about 1840. Formerly in the Whitby Museum.

One, Bradwell, Suffolk: Gurney and Fisher, *Zool.*, 1846, p. 1305; Babington, "Birds of Suffolk."

One, Spinningdale, Sutherlandshire, May 1847: St. John, "Tour in Sutherland," vol. i. p. 123; Gray, "Birds of West of Scotland," p. 64.

One, Hunmanby, York, 1847: B. Morris, *Zool.*, 1850, p. 2649.

One near Whitburn, Durham, Oct. 1848: Bold, *Zool.*, 1850, p. 2765; Hancock, *op. cit.*

One, Beechamwell, Norfolk, Jan. 27, 1849. In the collection of Rev. E. Dowell of Dunton.

One, Rothbury, Northumberland, April 1849. In the collection of Mr. John Hancock.

One, Melsetter, Orkney, 1851: Baikie, *Zool.*, 1853, p. 3843.

One, Holmbush Park, near Horsham, March 27, 1857: Borrer, *Zool.*, 1858, p. 5988. This was a Little Owl. Mistake corrected, "Birds of Sussex," p. 33.

One, Burlingham, Norfolk, April 6, 1857: Stevenson, "Birds of Norfolk," vol. i. p. 60.

One, Winscombe, Somersetshire, winter 1859-60: Gould, "Birds of Great Britain."

One, Cramond Isle, Firth of Forth, Dec. 1860: R. Gray.

- One, Flamborough, Oct. 1, 1863: Boulton, *Zool.*, 1864, p. 9020; Clarke and Roebuck, *op. cit.*
- One near Embleton, Northumberland, March 1861. In the collection of the late Mr. Brodrick.
- Two, Windsor Forest, summer 1864: Clark Kennedy, "Birds of Berks and Bucks," p. 167.
- One near Righton, of the Eleven Towns, Shropshire, April 3, 1872: Harting, *Field*, April 27, 1872; Rocke, *Zool.*, 1872, p. 3111, who gives the date as March 23. I obtained the particulars from Shaw of Shrewsbury, who received the bird for preservation.
- One, Egton, near Whitby, Nov. 19, 1872. In the collection of Mr. Lister of Glaisdale.
- One, Poplar, Jan. 1877: Bidwell, *Zool.*, 1877, p. 176.
- One, Gosforth, Cumberland, March 1877. In the collection of Rev. C. Fullerton Smith.
- One, Normanby, near Whitby, Dec. 30, 1880. In the collection of Mr. H. Wilson, of Whitby (*vide* Clarke).
- Three near Scarborough, Oliver's Mount, and Ayton Moor, 1883-86: Harper, *Zool.*, 1886, p. 214.
- One, Saltfleet, Lincolnshire, Oct. 22, 1880: Cordeaux, *Zool.*, 1880, p. 512.
- One, Dartford, Kent, Nov. 1881: *Field*, Nov. 18, 1881.
- One, Holmpton in Holderness, Oct. 18, 1884: Cordeaux, *Nat.*, 1884, p. 112.
- One, Cromer Lighthouse, Oct. 30, 1881: Gurney, *Zool.*, 1882, p. 115; Stevenson, *Zool.*, 1883, p. 320; Gunn, *Zool.*, 1884, p. 5. In the collection of Mr. J. H. Gurney.

Obs. Some remarks by John Wolley on the nesting of this bird in Lapland will be found in *The Zoologist*, 1857, p. 5838, and in Newton's "Ootheca Wolleyana," part i. p. 165. Mr. D. G. Elliot has shown (*Ibis*, 1872, pp. 48-52) that this species is identical with the North-American bird generally known as *N. richardsoni*, Bonaparte; North

America, therefore, should be added to the habitat. The measurements above given were taken from the last-reported specimen in the collection of Mr. Gurney. The bill was of a pale horn colour, darker on the cutting edges of both mandibles; claws black; eyes large and of a pale chrome-yellow, pupil black.

EAGLE OWL. *Bubo maximus*, Fleming. Length, 26 in.; wing, 18·5 in.; tarsus, 3·25 in.

Hab. Europe and Asia.

One, Yorkshire: Pennant, "Brit. Zool.," i. p. 157 (1768).

One, Hurstmonceux, Sussex, Dec. 29, 1784: Latham, "Synopsis," 1st Suppl.; Fox, "Synopsis Newcastle Museum," p. 52; Borrer, "Birds of Sussex," p. 31.

One, Kent: Latham, *op. cit.*

One or more in Scotland and in Yorkshire: Montagu, "Orn. Dict.," 1802-1813.

One, Fifeshire: Pennant, "Caledonian Zoology," p. 18.

One, Honiton, Devon, 1820: Moore, *Trans. Plymouth Inst.*, 1830, p. 298; D'Urban, "Birds of Devon," p. 137.

One, Horton near Bradford, about 1824: Denny, "Catalogue of Yorkshire Birds," *Ann. Nat. Hist.*, 1840.

One, Shardlow, Derbyshire, 1828: Briggs, *Zool.*, 1849, p. 2477; Whitlock, "Birds of Derbyshire," p. 124.

One near Oxford, winter 1833: Matthews, *Zool.*, 1849, p. 2596; Aplin, "Birds of Oxfordshire," p. 38.

One caught alive off Flamborough, 1837: Hawkrige, *Naturalist*, iii. p. 155.

One seen near Goring, autumn 1843: Matthews, *l.c.*

One, Hampstead, Middlesex, Nov. 3, 1845: Hall, *Zool.*, 1846, p. 1495; Harting, "Birds of Middlesex," p. 13.

One seen, Greetland, near Halifax, Nov. 1845 (Clarke).

One, Swansea: Dillwyn's "Fauna of Swansea," p. 4.

Several in Derbyshire: Briggs, *Zool.*, 1849, p. 2477.

One near Aberdeen, Feb. 1866: Gray, "Birds of West of Scotland," p. 55.

One, Balta Sound, Shetland, March 1871: Saxby, "Birds of Shetland," p. 35.

One seen, North Sunderland, Oct. 1872: Hancock, "Birds of Northumberland and Durham," p. 22.

One, Hermitage Farm, Bridgenorth, autumn 1873: Cooke, *Zool.*, 1874, p. 3997.

One on the banks of the Tummel, near Pitlochry, Perthshire, Feb. 1873: Received for preservation by M^r Leay, *Land and Water*, Feb. 1873.

One, Rombald's Moor, near Ilkley, Yorks, July 1876: Butterfield, *Zool.*, 1877, p. 177.

One seen, Scarborough, Oct. 30, 1879: Clarke, *Zool.*, 1880, p. 358; Clarke and Roebuck, p. 43.

Obs. In Low's "Fauna Orcadensis," 1813, p. 41, this bird is said "still to be found," as if it were at that date a resident in Orkney; and in a more recent "Fauna Orcadensis," by Messrs. Baikie and Heddle (1848), the authors remark (p. 30) that it is "believed still to breed in the Hammers of Birsay, Orkney." It is seen occasionally in Shetland (Crotch, *Zool.*, 1861, p. 7339, and Saxby, *Zool.*, 1864, p. 9240). But in regard to both Orkney and Shetland, the more recent volumes issued by Mr. Harvie-Brown on the fauna of those islands should be consulted. In Ireland it is said to have been only once observed (Thomson, "Nat. Hist. of Irel. (Birds)," p. 85), and it has not been included by Mr. Ussher in his lately published volume on the birds of that country.

The late Mr. Edward Fountaine, of Easton,

Norfolk, was very successful in breeding both the European Eagle Owl and the Snow Owl in confinement. For particulars see *Ibis*, 1859, p. 273, and 1875, p. 517.

ORDER II. PASSERES

Fam. LANIIDÆ.

PALLAS'S GREY SHRIKE. *Lanius major*, Pallas.

Length, 10 in.; bill, 0·75 in.; wing, 4 in.; tarsus, 1 in.

Hab. Northern Scandinavia and Russia eastwards throughout Siberia.

One, Bridgend, near Cardiff, April 1881; exhibited by Mr. Seebohm, *Proc. Zool. Soc.*, Dec. 13, 1881; *Zool.*, 1882, p. 109; Drane, "Birds of Glamorgan," 1900, figured from a photograph.

One, Vale of Belvoir, Feb. 8, 1885: Browne, "Birds of Leicestershire," p. 71.

One on the Erewash, Notts, Jan. 11, 1892: Whitlock, "Birds of Derbyshire," p. 70.

One shot at Chilwell, near Beeston, Notts, Jan. 1892: Whitlock, *Zool.*, 1892, p. 76.

Obs. This Shrike differs from *Lanius excubitor* in having the upper tail coverts *white*, and so little white at the base of the secondaries as to form only one white speculum on the wing when closed, *i.e.* on the primaries. The tail measures $4\frac{1}{2}$ inches, and the weight is $2\frac{1}{4}$ oz. It interbreeds with *L. excubitor* in Scandinavia (Collett, *Ibis*, 1886, pp. 30-40; and Newton, "Dict. Birds," p. 844). See the remarks under Great Grey Shrike, p. 31, Pl. 5, fig. 6.

The occurrence in Great Britain of a North-American species of Grey Shrike (*Lanius excubitoroides*, Swainson), has several times been reported or hinted at (*cf.* Longmuir, *Naturalist*, vol. ii. p. 239, and vol. iii. p. 140; Smith, *Zool.*, 1849, pp. 2495–2567; Garth, 1850, p. 2649; Tomes, 1850, pp. 2650 and 2734, fig.; and Gray, “Birds of West of Scotland,” p. 65). It would appear, however, from what has been stated by Messrs. Dresser and Sharpe (*P. Z. S.*, 1870, p. 590) and Prof. Newton (Yarrell’s “Brit. Birds,” vol. i. p. 203) on the changes of plumage which the Grey Shrikes undergo, that the birds which were thought to be of North-American origin were the young of *Lanius excubitor*.

LESSER GREY SHRIKE. *Lanius minor*, Gmelin.

Length, 8·25 in.; bill, 0·5 in.; wing, 4·25 in.; tarsus, 0·9 in.

Hab. Central and Southern Europe, wintering in North Africa.

One, Heron Court, near Christchurch, Hants, Sept. 1842 : Murray Mathew, *Zool.*, 1894, p. 345.

One, St. Mary’s, Scilly, Nov. 1851 : Rodd, *Zool.*, 1851, p. 3301, and 1867, p. 703. In the collection of E. H. Rodd.

One, Yarmouth, Norfolk, spring 1869 : Mathew, *Zool.*, 1870, p. 2060; Stevenson, *tom. cit.*, p. 2139; “Birds of Norfolk,” vol. iii. p. 376. In collection of M. A. Mathew.

One, Yarmouth, May 1875 : Stevenson, *Zool.*, 1875, p. 4633, and Gurney, *tom. cit.*, p. 4691; Stevenson, *Trans. Norfolk Nat. Soc.*, 1876, p. 209. In collection of J. H. Gurney.

One taken alive near Plymouth, Sept. 23, 1876, immature : Gatcombe, *Zool.*, 1876, p. 5178.

One near Budleigh Salterton, July 22, 1894: Mathew, "Suppl. Birds Devon," 1895, p. 12.

One, Mid-Kent, May 15, 1897: Frohawk, *Field*, May 29, 1897; *Zool.*, 1897, p. 427.

SOUTHERN GREY SHRIKE. *Lanius meridionalis*, Temminck. Length, 9 in.; bill, 0.75 in.; wing, 4.25 in.; tarsus, 1.25 in.

Hab. South of France, Spain, and Portugal.

One, Colchester, Nov. 1875: Bree, *Field*, Nov. 13, 1875. The recorder had European skins for comparison.

Obs. The sexes are alike in colour, except that in the female the white edgings of the scapulars are perhaps not quite so broad as in the male (Sharpe). The pink tone of the underparts noticed by Mr. Saunders as characteristic of this species is perhaps only assumed during the breeding season, as is the case with the Goosander and some of the Terns and Gulls.

Fam. MUSCICAPIDÆ.

RED-BREASTED FLYCATCHER. *Muscicapa parva*, Bechstein. Length, 5 in.; bill, 0.4 in.; wing, 2.5 in.; tarsus, 0.65 in.

Hab. A summer visitor to St. Petersburg, North-Eastern Germany, and South Central Europe, Southern Russia, and Persia. Winters in Northern India and China.

One, Constantine, near Falmouth, Jan. 24, 1863: Rodd, *Zool.*, 1863, p. 8444; "Birds of Cornwall," p. 26.

Two, Scilly, Oct. 1863: Rodd, *op. cit.*, p. 11, and *Ibis*, 1864,

p. 131; G. R. Gray, *Ann. Mag. Nat. Hist.* (3rd series), vol. xi. p. 229.

One, Tresco, Scilly, Nov. 5, 1865: Rodd, *op. cit.*

One, Berwick-on-Tweed, Oct. 5, 1883: *vide* G. Bolam.

One, Arklow Lightship, co. Wexford, Oct. 23, 1887: Barrington, *Zool.*, 1888, p. 391.

One, Scarborough, Oct. 23, 1889: Cordeaux, *Nat.*, 1890, p. 14; *Zool.*, 1891, p. 362. Collection of Sir V. Crewe.

One, Cley, Norfolk, Sept. 13, 1890: *Proc. Zool. Soc.*, 1890, p. 616; Ogilvie, *Trans. Norf. Nat. Soc.*, vol. v. p. 197.

One, Teraght Rock, Kerry, Oct. 20, 1890: *Zool.*, 1891.

One, Tory Is., Donegal, Oct. 28, 1894: Ussher, p. 48.

Two, Cley, Norfolk, Oct. 1894, Sept. 1896: *Zool.*, 1895-97.

One, Rollesby, Norfolk, Dec. 12, 1896: Coll. Connop.

One, off Wexford, Sept. 24, 1898, *ib.*

Fam. PETROCINCLIDÆ.

ROCK THRUSH. *Petrocincla saxatilis* (Linnæus).

Length, 7·5 in.; bill, 0·8 in.; wing, 4·75 in.; tarsus, 1 in.

Hab. Alpine districts of Central and Southern Europe.

One, Thorfield, near Royston, May 19, 1843: Yarrell, "Brit. Birds." Formerly in the collection of Mr. Thurnall, at whose sale it was bought by Mr. F. Newcome for £7.

One, Robin Hood's Bay, Yorkshire, 1852: Bedlington, *Nat.*, 1856, p. 21 (doubtful).

One or more erroneously reported to have been shot at Freshwater, Isle of Wight (*Zool.*, 1867, pp. 823, 913).

One seen on the Overton Hills, near Frodsham, Cheshire, April 4, 1890: Fryer, *Zool.*, 1890, p. 187. *Quære* whether this may not have been a Ring Ouzel on its spring migration.

Obs. The Blue Thrush, *Petrocossyphus cyaneus*, is said to have been killed in co. Meath in Nov. 1866 (*Zool.*, 1870, p. 2019); but Messrs. Sharpe and

Dresser, who inquired into the circumstance ("Birds of Europe"), rejected its claims to be included in the list of British birds; and Mr. A. G. More subsequently showed that it was erroneously reported to have been killed in Ireland (*Zool.*, 1880, p. 67).

Fam. TURDIDÆ.

WHITE'S THRUSH. *Turdus varius*, Pallas. Length 12·5 in.; bill, 1·25 in.; wing, 6·25 in.; tarsus, 1·4 in.

Hab. Siberia, China, Japan, and Formosa.

One, Christchurch, Hants, Jan. 24, 1828: Eyton, "Rarer Brit. Birds," p. 92; Yarrell, "Hist. Brit. Birds," 4th ed., i. p. 251, figured. In collection of Lord Malmsbury.

One, New Forest: Yarrell, *op. cit.*; Wise, "New Forest," p. 314. In the collection of Mr. Bigge.

One, Bandon, Cork, Dec. 1842: Allman, *Ann. Nat. Hist.*, xi. p. 78; and Thompson, "Nat. Hist. Irel. (Birds)," i. p. 128; Harvey, "Fauna of Cork," p. 6. In the Museum, Trinity College, Dublin.

One, Welford, Stratford-on-Avon, Jan. 26, 1859: Tomes, *Ibis*, 1859, p. 379.

One, Ballymahon, co. Longford, spring 1867: Blake Knox, *Zool.*, 1870, pp. 2019, 2060; More, "List of Irish Birds," p. 8; Ussher, "Birds of Ireland," p. 5.

One, Hestercombe, Somerset, Jan. 1870: Cecil Smith, *Zool.*, 1870, p. 2018.

One seen, Cleveland, Yorkshire, spring of 1870: Atkinson, *Zool.*, 1870, p. 2142.

One, Almondbury Bank, near Huddersfield: Beaumont, *Huddersfield Nat.*, 1864, p. 217.

One seen (a doubtful instance), Cobham, Kent, Jan. 5, 1871: Lord Clifton, *Zool.*, 1871, p. 2845.

One, Langsford, Somerset, Jan. 7, 1871: Cecil Smith, *Zool.*, 1871, p. 2607; Byne, *Field*, May 6, 1871.

- One, Hickling, Norfolk, Oct. 10, 1871: Gunn, *Zool.*, 1871, p. 2848; Stevenson, *tom. cit.*, 1872, p. 2978, and "Birds of Norfolk," vol. iii. p. 377.
- One, Castle Eden Dene, Durham, Jan. 31, 1872: J. Selater and J. C. H. Johnstone, *Field*, Feb. 24, 1872; *Zool.*, 1872, p. 3041.
- One, Probus, near Grampound, Cornwall, Jan. 1874: Rodd, *Zool.*, 1874, p. 3880.
- One, Hardacres, Berwickshire, Dec. 1878: Harting, *Zool.*, 1879, p. 133.
- One near Whitby, Nov. 1878: M. Simpson, *Zool.*, 1880, p. 68. In the Whitby Museum.
- One, Dene Wood, near Ashburton, Devon, Jan. 1881: Holdsworth, *Proc. Zool. Soc.*, 1881; *Zool.*, 1881, p. 108.
- One near Withernsea, Nov. 1881: Clarke, *Zool.*, 1882, p. 174; Cordeaux, *Zool.*, 1891, p. 361.
- One, Pocklington, Yorkshire, Jan. 1882: Backhouse, *Zool.*, 1882, p. 74; Gurney, *Trans. Norf. Nat. Soc.*, vol. iv. p. 629.
- One near Westport, co. Mayo, Jan. 9, 1885: More, *Zool.*, 1885, p. 111; Ussher, "Birds of Ireland," p. 5. In the Museum of Science and Art, Dublin.
- One, Tresco, Scilly, Dec. 1886: Cornish, *Zool.*, 1886, p. 114.
- One, Shrewsbury, Jan. 1892: Cooke, *Field*, Jan. 30, 1892.
- One near Southampton, Feb. 1894, seen in possession of Mr. Hill at Bulford, Amesbury, Wilts, Sept. 6, 1894.

Obs. An excellent paper on this species by Tomes will be found in *The Ibis* for 1859, p. 379. Reference should also be made to Bonaparte's monograph of the genus *Oreocincla* in the *Revue et Magasin de Zoologie*, 1857; to the collected observations on White's Thrush, *Zool.*, 1874 (p. 4045), and to Menzbier's remarks on its distribution in Siberia, *Ibis*, 1893, p. 371. The type of *T. heinii*, Cabanis, which was originally supposed to have

come from Japan, and to be identical with *T. varius*, Pallas, has since been ascertained to have come from Australia, and to be *T. lunulatus*, Latham. The late Mr. Gurney, however, informed me that he had seen *T. varius* from Japan; and Swinhoe obtained it in Formosa, giving it at first the name of *T. hancii*, which he afterwards withdrew.

BLACK-THROATED THRUSH. *Turdus atrigularis*, Temminck. Length, 9·15 in.; bill, 0·9 in.; wing, 5·4 in.; tarsus, 1·25 in.

Hab. Central Siberia, between lat. 60° and 63°, wintering in Turkestan and Northern India.

One near Lewes, Sussex, Dec. 23, 1868: Gould, *Ibis*, 1869, p. 128; Dawson Rowley, *Proc. Zool. Soc.*, 1869, p. 4, and Monk, *Zool.*, 1869, p. 1560. In the collection of Mr. T. J. Monk of Lewes.

One near Perth, Feb. 1879; Drummond Hay, *Ibis*, Oct. 1889. In the Edinburgh Museum.

Obs. This eastern species of Thrush has been found as a wanderer not only in the British Islands, but in Russia, Germany, Denmark, Belgium, France, and Italy. The first recorded British specimen was kept alive for some time in the late Mr. T. J. Monk's aviary at Lewes.

SIBERIAN THRUSH. *Turdus sibiricus*, Pallas. Pl. 6, figs. 8, 9. Length 9 in.; bill, 0·8 in.; wing, 4·65 in.; tarsus, 1 in.

Hab. Siberia and Japan, wintering in China, Burma, Sumatra, and Java.

One between Guildford and Godalming (or near Farnham, *vide* Gurney, *Trans. Norf. Nat. Soc.*, iv. p. 629),

winter 1860-61 : sent to Bond as a variety of the Red-wing, and identified by Blyth, *Field*, Sept. 24, 1870. See also *Zool.*, 1889, p. 415, and Bucknill, "Birds of Surrey," p. 16. In the British collection, Natural History Museum, South Kensington.

Obs. Mr. Howard Saunders has reason to believe that another specimen was picked up at Bonchurch, Isle of Wight, in the winter of 1874 (*Trans. Norf. Nat. Soc.*, vol. iv. p. 629).

RED-BREASTED THRUSH (AMERICAN ROBIN),
Turdus migratorius, Linnæus. Length, 9 in ; bill, 0·9 in. ; wing, 5·25 in. ; tarsus, 1·25 in.

Hab. North America, Alaska, and part of Greenland, migrating southwards in autumn.

One caught alive, Dover, April 1876 : Harting, *Zool.*, 1877, p. 14.

One shot at Springmount, Shanakill, co. Dublin, May 4, 1891 : Seebohm, *Zool.*, 1891, p. 219, and *Irish Nat.*, 1892, p. 3. In the Science and Art Museum, Dublin.

One captured with Redwings, near Leicester, Oct. 1893, and kept alive to date of record : Langdale, *Zool.*, 1894, p. 459.

One near Southend, Shoeburyness, winter 1894-95.

Obs. This migratory Thrush has also occurred on the Island of Heligoland, where one flew against the lighthouse, and was picked up dead, on Oct. 14, 1874 (Gätke, "Die Vogelwarte Helgoland," p. 264). Four other European occurrences are recorded ("Bull. Nuttall Orn. Club," 1880, p. 68), one near Berlin and three in Austria. Under these circumstances we may fairly claim the American Robin as a rare straggler to Europe and the British Islands.

Fam. PYCNONOTIDÆ.

GOLD - VENTED THRUSH. *Pycnonotus capensis*
(Linnæus).

Hab. South Africa, and restricted to Cape Colony.

One said to have been shot at Mount Beresford, near Waterford, Jan. 1838: Thompson, "Nat. Hist. Irel. (Birds)," i. p. 153, and Yarrell, "Hist. Brit. Birds." Erroneously identified by Thompson and Yarrell with *P. aurigaster* of Vieillot. See Ussher, *Zool.*, 1896, p. 161.

Obs. On this bird Dr. Sharpe writes: "*P. capensis* is one of the most restricted of all the species in its range, being, in fact, confined to the Cape Colony below the Karroo country. There is not the slightest probability of its having migrated from the Cape to Ireland." As to the reported or supposed occurrence of *Pycnonotus obscurus* (Temm.) at Hastings in 1860, see Gurney, *Trans. Norf. Nat. Soc.*, vol. iv. p. 629.

Fam. SYLVIIDÆ.

ALPINE ACCENTOR. *Accentor alpinus*, Bechstein.

Length, 6·75 in.; bill, 0·6 in.; wing, 4 in.; tarsus, 1 in.

Hab. Central and Southern Europe.

Two seen, one shot, Cambridge, Nov. 22, 1822: *Zool.*

Journ., 1824, p. 134; Yarrell, "Brit. Birds." Figured.

One seen, Oulton, near Lowestoft, March 1824: Lubbock,

"Fauna of Norfolk," p. 35.

One, Walthamstow, Essex, prior to 1832: Pamplin, *Mag.*

Nat. Hist., 1832, p. 288. In August 1817 (*vide* Gurney),

Christy, "Birds of Essex," p. 89.

One, Wells, Somerset, 1833: Yarrell, *op. cit.*

One on the cliffs near Teignmouth, Jan. 9, 1844: Hore, *Zool.*, 1844, p. 566. Seen by Mr. D'Urban.

One at Berry Head, near Torquay, 1844: Hore, *Zool.*, 1845, p. 879. In the Torquay Museum.

One near Shoreham, Sussex, 1845, purchased by Bond at the sale of the Margate Museum.

Two, Lewes, Sussex, Dec. 26, 1857: Porter, *Zool.*, 1858, p. 5958; Borrer, "Birds of Sussex," p. 51.

Two shot by Gatcombe near Plymouth, Jan. 10, 1859: Gatcombe, *Zool.*, 1859, p. 6377. These birds had been previously seen on Dec. 20 and Jan. 8.

One near Cheltenham, 1860: Col. Newman, *Zool.*, 1860, p. 6889; Witchell, "Birds of Gloucestershire."

One near Scarborough, winter 1862-63: Boulton, *Zool.*, 1863, p. 8766; Clarke and Roebuck, p. 23.

One seen on Snowdon, Aug. 20, 1870: H. Saunders, "Manual of British Birds," p. 95.

Obs. Mr. H. C. Playne has given an interesting description of his discovery of the nest and young of the Alpine Accentor in June 1893 on the Engstlen Alp (*Zool.*, 1893, p. 309). See also Mr. Sclater's notes on this bird as observed in the Riffel Alp, Canton Valley, Switzerland (*Zool.*, 1898, p. 475).

BLUE-THROATED WARBLER. *Cyanecula suecica* (Linnaeus). Pl. 7, figs. 2, 3, 4. Length, 6 in.; bill, 0.6 in.; wing, 3 in.; tarsus, 1 in.

Hab. Northern Europe and Asia; wintering in North Africa, India, and South China, and occurring in the intervening countries on migration.

There are three forms of Blue-throated Warbler, which have received separate names, and have been treated as distinct species:—

1. *Motacilla suecica* of Linnæus. The eastern and northern form, with a *red* spot in the centre of the blue throat.
2. *Sylvia leucocyanea* of Brehm. The western and southern form, with a *white* spot in the centre of the blue throat. This may be regarded as the ordinary Dutch and German form.
3. *Sylvia wolffi* of Meyer, with the entire throat blue. This is the rarest of the three in collections. It is said to be more common in Russia, and has been met with in Holland and in Spain.

See remarks on hybrids between the different forms: Suchetet, "Oiseaux Hybrides," p. 349.

So far as can be ascertained, the form met with in Great Britain has been No. 1, the true *suecica*, although in two or three cases a white-spotted bird is stated to have been obtained. The following instances of the occurrence of Blue-throated Warblers in England are on record:—

One, Newcastle Town Moor, May 1826 (red spot): Fox, "Synops. Newcastle Mus.," pp. 298, 309; Selby, *Trans. Nat. Hist. Soc. Northumb.*, 1831, p. 255, and *Zool. Jour.*, vol. iii. p. 497.

One, Devonshire (doubtful): M. C. Cooke, *Nat.*, 1853, p. 203.

One near Birmingham: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. i. p. 265.

One near Yarmouth, Sept. 21, 1841 (red spot): Yarrell, *op. cit.*

Two, Isle of Sheppy, Sept. 1844: Yarrell, *op. cit.*

One, Whimble, South Devon, Sept. 1852: Powys, *Zool.*, 1852, p. 3709.

One near Worthing, Sussex, May 2, 1853: Stephenson, *Zool.*, 1853, p. 3907; Borrer, "Birds of Sussex," p. 54.

One near Brighton, Sept. 1855: Cavafy, *Nat.*, 1855, p. 264.

- One near Lowestoft, May 15, 1856 (red spot): Stevenson, "Birds of Norfolk," vol. i. p. 96.
- One, Worthing, Sussex, April 1858: Wilson, *Zool.*, 1859, p. 6605.
- One, Brighton, Oct. 1862 (red spot): Pratt, *Zool.*, 1862, p. 8281. In the collection of W. Borrer.
- One, Ventnor, Isle of Wight, resident from 1865 to 1867 (white spot): Hadfield, *Zool.*, 1865, pp. 9605, 9724, 9846; 1866, pp. 172, 176, 218, 445; 1867, p. 732.
- One alighted on the s.s. "North Star," off the Norfolk coast, Sept. 1, 1867: Griffith, *Zool.*, 1867, p. 1014.
- One captured on board a fishing-boat off Aberdeen, May 16, 1872 (red spot): R. Gray, MS.
- One near Scarborough, April 12, 1876 (white spot): Field, May 6, 1876; Tuck, *Zool.*, 1876, p. 4956.
- One near Lowestoft, July 1877 (red spot): J. P. Moore, MS. and coloured drawing.
- Several at Spurn during Sept. and Oct. 1883-86 (red spot): Cordeaux, *Zool.*, 1891, p. 362.
- One, Monach Island Lighthouse, Outer Hebrides, Oct. 11, 1888, arrived with Redstarts in a gale, from N. and N.E., with snow: Harvie-Brown, "Fauna Outer Hebrides," p. 352.
- One, North Cotes, Lincolnshire, Sept. 20, 1892 (red spot): Caton Haigh, *Zool.*, 1892, p. 417.
- One, Spurn, Sept. 22, 1892: Cordeaux, *Nat.*, 1893, p. 9.
- One, Cley, Norfolk, Sept. 7, 1896: R. Gurney, *Field*, Sept. 1896; *Zool.*, 1897, p. 132.

BLACK-THROATED WHEATEAR. *Saxicola stapazina*, Vieillot. Pl. 7, fig. 13. Length, 8 in.; bill, 0.6 in.; wing, 3.5 in.; tarsus, 0.9 in.

Hab. South of France, Spain, Western Algiers, and Morocco, wintering in Western Africa.

- One, Bury, Lancashire, May 8, 1875: Sclater, *Proc. Zool. Soc.*, 1878, pp. 881-977, and Harting, *Zool.*, 1879, p. 30,



1. Great Northern Diver, ad. ♂. 2. Black-throated Diver, ad. 3. 4. 4a. Red-throated Diver. 5. Great Crested Grebe.
6. Rednecked Grebe. 7. Slavonian Grebe. 8. 9. Eared Grebe. 10. 11. 12. Little Grebe.

an adult male. Figured by Saunders, "Manual," p. 23, and by Dresser, "Birds of Europe," under the name *Saxicola rufa*.

Obs. This bird, the Russet-coloured Wheatear of Edwards ("Nat. Hist. Birds," 1743, p. 31, pl. xxxi.), is regarded as a western form of the Black-throated Wheatear, *Saxicola melanoleuca* (Güldenstädt), differing from it in having the black on the throat much less extended, and in having both dorsal and ventral feathers more suffused with buff. In fact, it is more rufous at all seasons than its closely allied congener. See note on a rare Wheatear seen near Spurn on Sept. 18, 1892, Cordeaux, *Zool.*, 1892, p. 424.

ISABELLINE WHEATEAR. *Saxicola isabellina*, Rüppell. Length, 6·5 in.; bill, 0·7 in.; wing, 3·75 in.; tarsus, 1·2 in.

Hab. Northern Russia, Asia Minor, and Palestine; wintering in Egypt, Nubia, and Abyssinia, as well as in N.W. India.

One, Allonby, Cumberland, Nov. 11, 1887: Macpherson, *Ibis*, 1888, p. 149. *Zool.*, 1888, p. 320; Saunders, "Manual," p. 21, figure. In the British Museum.

Obs. Not unlike a female of the Common Wheatear, but with a broader white lining to the quills, and a longer tarsus. For a more detailed account of the distribution of this and the last-mentioned species, see *Proc. Zool. Soc.*, 1874, pp. 218, &c.; and as an aid to the identification of immature examples, see the remarks by Mr. Aplin on the spring moult of the Wheatear, *Zool.*, 1887, p. 300.

DESERT WHEATEAR. *Saxicola deserti*, Rüppell.

Length, 6 in.; tail, 0·6 in.; wing, 3·75 in.; tarsus, 1 in.

Hab. North Africa, Palestine, Arabia, and Southern Persia; wintering in Beluchistan, Sind, and N.W. India.

One near Alloa, Clackmannanshire, Nov. 26, 1880: Dalglish, *Proc. Roy. Phys. Soc., Edinb.*, 1881, vol. vi. p. 64, and *Zool.*, 1881, p. 146. Exhibited by Mr. Dresser, *Proc. Zool. Soc.*, 1881, p. 453.

One near Kilnsea, Holderness, Oct. 17, 1885: Eagle Clarke, *Proc. Zool. Soc.*, 1885, p. 835; *Zool.*, 1885, p. 479. In the collection of Mr. J. H. Gurney.

One, Arbroath, Dec. 28, 1887: Drummond Hay, *Proc. Zool. Soc.*, March 6, 1888; and *Ibis*, 1888, p. 283.

Obs. This species, commonly known as the Desert Chat, is one of the most familiar birds on the arid deserts of the Algerian Sahara, Egypt, Nubia, and Arabia, and is well known also to travellers on the sandy plains of the North-West Provinces of India. How it comes to be met with in the British Islands is a mystery as yet unexplained.

AQUATIC WARBLER. *Acrocephalus aquaticus* (Gmelin).

Length, 4·5 in.; bill, 0·5 in.; wing, 2·5 in.; tarsus, 0·75 in.

Hab. Central and Southern Europe; migrating to North Africa in winter.

One, Hove, near Brighton. Oct. 19, 1853: A. Newton, *Proc. Zool. Soc.*, 1866, p. 210.

One near Loughborough, Leicestershire, summer 1864: Harting, *Ibis*, 1867, p. 468; *Zool.*, 1867, p. 946.

One near Dover: Gurney, *Zool.*, 1871, p. 2521. In Dover Museum.

One, Blakeney, Norfolk, Sept. 9, 1896 : Gurney, *Zool.*, 1897, p. 133.

One, Christchurch, Hants. In collection of Mr. E. Hart.

One, Farlington Marsh, Havant, Hants, Sept. 1897 : Scott, *Zool.*, 1897, p. 471.

Obs. Mr. Gurney has pointed out (*Trans. Norf. Nat. Soc.*, 1871-72, p. 62) that the figure of the Sedge Warbler given in Hunt's "British Ornithology" (Norwich, 1815) was undoubtedly taken from a specimen of *A. aquaticus*, and most probably, therefore, from one killed in Norfolk.

RUFIOUS WARBLER. *Aëdon galactodes* (Temminck).

Length, 7 in.; bill, 0·75 in.; wing, 3·5 in.; tarsus, 1 in.

Hab. North Africa and Southern Europe in summer.

One, Plumpton Bosthill, near Brighton, Sept. 16, 1854 : Borrer, *Zool.*, 1854, p. 4511. A coloured figure is given in Borrer's "Birds of Sussex."

One, Start Point, Devonshire, Sept. 1859 : Llewellyn, *Ann. Mag. Nat. Hist.* (1859), iv. p. 399; *Ibis*, 1860, p. 103.

One, Old Head of Kinsale, Sept. 1876 : Ussher, *Irish Nat.*, 1899, p. 52. In Museum of Queen's College, Cork.

One near Slapton, South Devon, Oct. 12, 1876 : Nicholls, *Zool.*, 1876, p. 5179, and *Field*, Oct. 28, 1876.

Obs. This bird has been called by some writers the "Rufous Sedge Warbler," but erroneously so, since it is never found in the neighbourhood of sedge, but on the driest ground amidst scrub and cactus. It is possible that this may be the "Red-tailed Warbler (*Sylvia erythaca*)," six specimens of which are stated to have been taken at Plymouth, and to have occurred there "for the first time in

Britain" (Bellamy, "Nat. Hist. South Devon," p. 205); although these are more likely to have been the Black Redstart (*Ruticilla tithys*), which, as a winter visitor, occurs not unfrequently in the neighbourhood of Plymouth.

ORPHEAN WARBLER. *Sylvia orphea*, Temminck.

Length, 6·25 in.; bill, 0·6 in.; wing, 3·25 in.; tarsus 1 in.

Hab. Central and Southern Europe; India and South-Western Asia; North Africa.

Two seen, one shot, Weatherby, Yorkshire, July 6, 1848: Sir W. Milner, *Zool.*, 1849, p. 2588, and 1851, pp. 3107–3111; Yarrell, "British Birds." Figured.

A young bird caught near Holloway, Middlesex, June 1866, and kept alive for six months: Harting, *Field*, April 22, 1871.

A nest with four eggs believed to belong to this species, taken in Notton Wood, Wakefield, June 1864: Harting, *loc. cit.*

Obs. From its resemblance to a large Blackcap, this bird may well have escaped observation as an occasional summer migrant to this country.

BARRED WARBLER. *Sylvia nisoria*, Bechstein. Length, 6·25 in.; bill, 0·7 in.; wing, 3·5 in.; tarsus, 0·9 in.

Hab. Central and Southern Europe; South Russia and Turkestan; wintering in Africa, and passing on migration through the South of France, Italy, Greece, and Asia Minor.

One in a garden at Cambridge, "many years ago": Prof. Newton, *Proc. Zool. Soc.*, 1879, p. 219.

One, Broadford, Isle of Skye, Aug. 16, 1884: G. D. Lees.

- One, Spurn, Yorkshire, Aug. 28, 1884: Rev. H. Slater, *Zool.*, 1884, p. 489; *Proc. Zool. Soc.*, 1884, p. 477.
- One, Blakeney, Norfolk, Sept. 4, 1884: F. D. Power, *Proc. Zool. Soc.*, 1884, p. 477; *Zool.*, 1884, p. 493.
- One, Belmullet, co. Mayo, Sept. 24, 1884: A. G. More, *Zool.*, 1890, p. 310. In Museum of Science and Art, Dublin.
- One, Blakeney, Norfolk, Sept. 10, 1888: Power, *Zool.*, 1889, p. 135; and Harting, *Zool.*, 1894, p. 59.
- One, Easington, Lincolnshire coast, Oct. 19, 1892: Newton, *Proc. Zool. Soc.*, Nov. 1, 1892; Cordeaux, *Zool.*, 1892, p. 424. In Museum of Science and Art, Edinburgh.
- One, Kilnsea, in Holderness, Nov. 13, 1893: Harting, *Zool.*, 1894, p. 58, summary of occurrences to date. In the collection of Mr. J. H. Gurney, *Nat.*, 1894, p. 15.
- One, Skirlaugh, East Yorkshire, Sept. 3, 1894: Boyes, *Field*, Dec. 29, 1894.
- One, Blakeney, Norfolk, Aug. 31, 1896: Gurney, *Zool.*, 1897, p. 131.
- One, Norfolk coast, Aug. 27, 1897: Rev. H. H. Slater, *Ibis*, 1898, p. 148.
- One, North Cotes, Lincolnshire, Sept. 5, 1898: G. H. Caton Haigh, *Ibis*, 1899, p. 120.

SUBALPINE WARBLER. *Sylvia subalpina*, Bonelli.
Length, 5 in.; bill, 0·5 in.; wing, 2·3 in.; tarsus, 0·75 in.

Hab. Southern Europe, in countries bordering the Mediterranean, where it is a summer visitor; wintering and partially resident in North Africa.

One, St. Kilda, June 1894: S. Elliott, *Zool.*, 1895, p. 282.
This bird was sent for preservation to Mr. J. Cullingford, of Durham, and was exhibited by Mr. Sharpe in December 1894 at a meeting of the British Ornithologists' Club.

Obs. The occurrence of this South European Warbler in St. Kilda is most remarkable. Mr.

Elliott suggests (*l.c.*) "its presence on the island was probably caused by the great gale that blew the previous day (June 12) from the south-west."

YELLOW-BROWED WARBLER. *Phylloscopus superciliosus* (Gmelin). Length, 4 in.; bill, 0·4 in.; wing, 2·25 in.; tarsus, 0·6.

Hab. Siberia, India, Nepaul,¹ China, Japan, and Formosa.²

One, Hartley Point, Northumberland, Sept. 1838: Hancock, *Ann. Mag. Nat. Hist.*, vol. ii. p. 310; Blyth, *Zool.*, 1863, p. 8329.

One, Charlton Kings, near Cheltenham, Oct. 11, 1867: Gould, *Ibis*, 1869, p. 128.

One, Scilly, shot by A. Pechell, recorded as an immature Firecrest: Rodd, *Zool.*, 1867, p. 1017, and "Birds of Cornwall," p. 249.

One, Sumburgh Head Lighthouse, Shetland, Sept. 25, 1886: Harvie-Brown, *Zool.*, 1886, p. 487.

One, Easington, Yorkshire, Oct. 1889: Hewetson, *Nat.*, 1890, p. 38.

One, Tearaght Rock Lighthouse, co. Kerry, Oct. 14, 1890: *Zool.*, 1891, p. 186; A. G. More, *Irish Nat.*, 1892, p. 3. In the collection of R. M. Barrington.

One, North Cotes, Lincolnshire, Oct. 7, 1892: Caton Haigh, *Zool.*, 1892, p. 413.

One, coast of Norfolk, Oct. 1, 1894: Gurney, *Field*, Nov. 3, 1894; *Zool.*, 1894, p. 459.

Three near Beverley, Yorkshire, Oct. 8, 1894: Boyes, *Field*, Oct. 27, 1894. One of these is in the Museum of Science and Art, Edinburgh.

Four, West Buckland, S. Devon, Oct. 1, 1895: Frohawk.

¹ *Ibis*, 1862, pp. 54-57.

² *P. Z. S.*, 1863, p. 297. This bird has occurred accidentally in Sweden (*fide* Sundeval), in Heligoland (Gätke and Brehm, *Journ. für Orn.*), and near Leyden (Crommelin, *Nederl. Tijdschr.*, 1865, p. 244).

Obs. Found breeding in Siberia by Seeböhm in the forest between the Yenesei and the Koorayika. The nest on the ground in a tuft of grass, semi-domed, composed of dry grass and moss, lined with reindeer hair; eggs resembling those of the Willow Warbler. This is the Dalmatian *Regulus* of some authors; a singularly inappropriate name, since the bird is not a *Regulus*, and is as rare in Dalmatia as it is in Great Britain. It is the Yellow-browed Warbler of Pennant and Latham, by whom it was first made known.

PALLAS'S WILLOW WARBLER. *Phylloscopus proregulus* (Pallas). Length, 4 in.; bill, 0·3 in.; wing, 2 in.; tarsus, 0·6 in.

Hab. Siberia, the Himalayas, and North China; but occurring annually on the western slopes of the Ural, and having been once obtained on Heligoland.

One, Cley-next-the-Sea, Norfolk, Oct. 31, 1896: Dresser, *Proc. Zool. Soc.*, 1896, p. 856, and *Trans. Norf. Nat. Soc.*, 1897, p. 280, with coloured plate; Southwell, *Zool.*, 1896, p. 466, 1897, p. 8; and Gurney, figure, *Zool.*, 1897, p. 136.

Obs. Distinguishable from the Yellow-browed Warbler, *P. superciliosus*, by having a yellowish stripe along the centre of the crown to the nape; the rump and two wing bars lemon-yellow.

From the observations of the late Mr. Cordeaux it would appear that the Siberian Willow Warbler, *Phylloscopus borealis*, "with a very distinct wing bar," has occurred in this country at least once, viz.,

on Nov. 21, 1893 (see *Zool.*, 1894, p. 125), just after a gale from the north and north-east.

BLYTH'S WILLOW WARBLER. *Phylloscopus viridanus*, Blyth. Length, 4 in.; bill, 0·4 in.; wing, 2·4 in.; tarsus, 0·75 in.

Hab. Siberia and Turkestan; wintering in India and Ceylon. Has occurred three times in Heligoland.

One, North Cotes, Lincolnshire, Sept. 5, 1896: G. Caton Haigh, *Bull. Brit. Orn. Club*, Oct. 21, 1896; *Zool.*, 1896, p. 436.

Obs. This is the Indian Willow Warbler, which breeds in Cashmere, and winters in the plains of India. It was first noticed by Blyth so long ago as 1843 (*Journ. As. Soc. Bengal*, xii. p. 967), and has since been generally recognised. A coloured figure of it is given by Hume and Henderson, "Lahore to Yarkand," 1873, pl. 19.

RADDE'S WARBLER. *Phylloscopus schwarzi* (Radde). Length, 5·5 in.; bill, 0·5 in.; wing, 2·5 in.; tarsus, 0·9 in.

Hab. South-Eastern Siberia westward to Tomsk, and wintering in South China.

One, North Cotes, Lincolnshire, Oct. 1, 1898: G. H. Caton Haigh, *Ibis*, 1899, p. 119, pl. 1. Not previously recorded within the European area.

Obs. Unlike the last-named, the general colour of the dorsal plumage is dark olive-brown; a buff streak over and behind the eye; the under parts buffy white on the breast and flanks; throat and belly pure white. Figured in Saunders' "Manual."

ICTERINE WARBLER. *Hypolais icterina* (Vieillot).

Pl. 8, fig. 9. Length, 5·25 in.; bill, 0·6 in.; wing, 3·1 in.; tarsus, 0·9 in.

Hab. Central and Southern Europe; migrating to North Africa in winter.

One, Eythorne, near Dover, June 15, 1848: Plomley, *Zool.*, 1848, pp. 2228, 2346; Yarrell, "Hist. Brit. Birds."

One, Dunsinea, co. Dublin, June 8, 1856: Carte, *Journ. Roy. Dubl. Soc.*, 1858, p. 440; Blake Knox, *Zool.*, 1870, p. 2018. In the Science and Art Museum, Dublin.

One, Blakeney, Norfolk, Sept. 11, 1884: Power, *Trans. Norf. Nat. Soc.*, iv. p. 39.

One, near Newcastle-on-Tyne, June 20, 1869: C. M. Adamson; see Saunders' "Manual," Appendix, p. 732.

One, Easington, Holderness, May 28, 1891: Cordeaux, *Zool.*, 1891, p. 308. In the Science and Art Museum, Edinburgh.

One, Wells, Norfolk, Sept. 4, 1893: Gurney, *Zool.*, 1894, p. 89.

One, Cley, Norfolk, Sept. 7, 1896: Gurney, *Field*, Sept. 1896, *Zool.*, 1897, p. 132; Stevenson and Southwell, "Birds of Norfolk," vol. iii. p. 378.

One, Lyme Regis, Dorset, May 1897: Mathew, *Zool.*, 1897, p. 332.

Obs. As to the supposed occurrence of the Icterine Warbler in Wicklow and in Pembrokeshire, see *Zool.*, 1886, pp. 333, 334, 365, and 1897, p. 420. Yarrell has pointed out that this species is the true *hypolais* of Continental authors, and that the *hypolais* of most British writers is the *rufa* of the Continent, the well-known Chiff-chaff. Yet the bird figured by him has the wings much

too short for *icterina*, and is more like *polyglotta*, the western representative of *icterina*.

As an illustration of the way in which Continental species sometimes find their way to England, and possibly to a place in the list of British birds, it may be added that in May 1868, Mr. J. G. Keulemans brought over three specimens of this bird from Holland, two of which he liberated at Harwich, the third having died on the passage.

MELODIOUS WILLOW WARBLER. *Hypolais polyglotta* (Vieillot). Length, 5 in.; bill, 0·5 in.; wing, 2·5 in.; tarsus, 0·8 in.

Hab. Southern Europe, wintering in North Africa.

One, Burwash, Sussex, April 30, 1897: Ticehurst, *Zool.*, 1897, p. 333.

Obs. This is the western representative of the more eastern *H. icterina*, breeding in Spain, and in Western France about as far as the Somme. Said to have been observed in Pembrokeshire during the summer of 1886. Described as something like a Chiff Chaff, but with the under parts of a bright sulphur-yellow, and possessing for so small a bird a very powerful and exquisite song (Mathew, "Birds of Pembrokeshire," p. 9).

RED-EYED GREENLET. *Vireo olivaceus* (Vieillot). Length, 5·25 in.; bill, 0·6 in.; wing, 3 in.; tarsus, 0·75 in.

Hab. Eastern North America, wintering from the Gulf States southwards.

Two taken by a bird-catcher, Chellaston, near Derby, May 1859: Sir Oswald Mosley, "Nat. Hist. Tutbury," 1863, p. 385. pl. 6; *Zool.*, 1864, p. 8965. The male was preserved for the collection of Mr. Edwin Brown, of Burton-on-Trent.

Dr. C. R. Bree has some remarks on this capture in *Field*, May 14, 1870. From Sir Oswald Mosley's figure of the bird, he identifies it as the West Indian form of *olivaceus*, i.e. *Vireo altiloquus* (Gray).

Neither of these is at all likely to be found in England, except as escaped cage-birds.

RUBY-CROWNED WREN. *Regulus calendula* (Linnaeus). Length, 4 in.; bill, 0.25 in.; wing, 2.25 in.; tarsus, 0.75 in.

Hab. United States, from Atlantic to the Pacific.

One, in the British Museum, stated to have been shot in Kenmore Wood, Loch Lomond side, by the late Dr. Dewar, in the summer of 1852, and recognised by the late Robert Gray of Glasgow. See Gould, *Proc. Zool. Soc.*, 1858, p. 290; Bree, "Birds of Europe," vol. ii. p. 109; and Saunders' "Manual," p. 58.

Obs. A second, recorded to have been procured in Branspeth Wood, Durham, in 1852 (Bree, *l.c.*), proved to be *Regulus ignicapillus*.

Fam. CERTHIIDÆ.

WALL-CREEPER. *Tichodroma muraria* (Linnaeus). Length, 6 in.; bill, 1.2 in.; wing, 3.9 in.; tarsus, 0.9 in.

Hab. Mountainous parts of Central and Southern Europe and Asia.

One, Stratton Strawless, Norfolk, October 1792: Robert Marsham, in a letter to Gilbert White; Bell, *Zool.*,

1875, p. 4664, and *Trans. Norf. Nat. Soc.*, vol. ii. p. 180; Stevenson, "Birds of Norfolk," vol. iii. p. 380, with facsimile sketch of two quill feathers made for Marsham; Saunders' "Manual," p. 111, with figure by G. E. Lodge.

One, Subden, Pendle Hill, Lancashire, May 8, 1872: Mitchell, *Zool.*, 1876, p. 4839; and "Birds of Lancashire," p. 60, with figure.

One, Winchelsea, Sussex, spring 1886: Butterfield, *Zool.*, 1896, p. 302.

One in Alderney, Dec. 19, 1899. Brought for identification to Mr. E. D. Marquand, who informed me of the fact, and forwarded the bird for preservation to a taxidermist in Guernsey.

Obs. For an account of the nesting of the Wall-Creeper, as observed in the gorge of the Trift near Zermatt, see St. Quintin, *Zool.*, 1896, p. 290.

Fam. MOTACILLIDÆ.

ASHY-HEADED WAGTAIL. *Motacilla cinereicapilla*, Savi. Length, 6·75 in.; bill, 0·5 in.; wing, 3 in.; tarsus, 0·9 in.

Hab. Southern Europe and North Africa, migrating as far south as the Transvaal.

One near Penzance, a male with nearly black head, in the collection of H. Vingoe: identified by Gould, to whom it was sent for inspection: Gould, "Birds of Great Britain," figure.

One near Sherringham, Norfolk, spring 1842: noticed by Messrs. Gurney and Fisher (*Zool.*, 1844) as the "Blue-headed Wagtail." See J. H. Gurney, *Trans. Norf. Nat. Soc.*, 1876, p. 226.

Obs. Except for its darker lores and ear coverts, darker crown, and inconspicuous white line above

the eye, this species hardly differs on the upper parts from *Motacilla flava*. Dr. Sharpe regards it only as a sub-species, and gives three figures of the head from different specimens, "Brit. Mus. Cat. Birds," vol. x. pl. vii. figs. 4-6.

TAWNY PIPIT. *Anthus campestris*, Bechstein. Pl. 10, fig. 2. Length, 7 in.; bill, 0.5 in.; wing, 3.5 in.; tarsus, 1 in.

Hab. Southern and South-Eastern Europe and North Africa, occasionally extending to South Africa.

Two, Brighton, Aug. 17, 1858, and Sept. 24, 1862: Dawson Rowley, *Ibis*, 1863, p. 37.

One, Brighton, Sept. 30, 1864: Dawson Rowley, *Ibis*, 1865, p. 113, and *Zool.*, 1864, p. 9327.

One, Scilly, Sept. 1868: Rodd, *Zool.*, 1868, p. 1458.

Two, Brighton, Sept. 6, 1869: Bond, *Zool.*, 1870, p. 1984; Borrer, "Birds of Sussex," p. 105.

One, Bridlington, Yorkshire, Nov. 20, 1869: *Zool.*, 1870, pp. 2021, 2068, 2101. In collection of Thos. Boynton.

One, Rottingdean, near Brighton, Sept. 29, 1870: Bond, *Zool.*, 1870, p. 2383. In collection of T. J. Monk.

One, Brighton, Oct. 1873: G. D. Rowley, *Field*, Oct. 11, 1873; *Zool.*, 1874, p. 3832. In the collection of Sir V. Crewe at Calke Abbey.

One, Eastbourne, Sussex, Oct. 8, 1874: Clark Kennedy, *Zool.*, 1875, p. 4456.

One near Brighton, Oct. 12, 1875: Swaysland, *Zool.*, 1875, p. 4694; and Bond, *Zool.*, 1877, p. 299.

One, Ditchling Bostell, Sussex, Sept. 29, 1876: Mathew, *Zool.*, 1877, p. 342. Borrer, *op. cit.*

One, Brighton, Oct. 1876: G. D. Rowley, *Field*, Oct. 22, 1876. In his collection.

One, Brighton, Oct. 23, 1882: Parkin, *Zool.*, 1883, p. 34.

Three caught on the downs north-east of Brighton, Oct. 1886, Langton, *Zool.*, 1886, p. 490.

- One, Ditchling Road, near Brighton, Aug. 25, 1887 : Chase, *Zool.*, 1887, p. 432.
 One, Lowestoft, Sept. 2, 1889, *Zool.*, 1890, p. 57.
 One, North Denes, Yarmouth, Oct. 7, 1897.

RED-THROATED PIPIT. *Anthus cervinus*, Pallas.
 Length, 5·6 in.; bill, 0·5 in.; wing, 3·5 in.; tarsus, 0·8 in.

Hab. Breeds in Scandinavia and Siberia, migrating in winter to China, Burma, India, and Egypt.

- One, Unst, Shetland, May 4, 1854, in collection of F. Bond : Harting, *Field*, Aug. 26, 1871. (Not well authenticated.)
 One, Rainham, Kent, April, 1880 : Prentis, *Zool.*, 1884, p. 272. Identified by Mr. R. B. Sharpe, and preserved by the recorder.
 One, Brighton, March 13, 1884 : Gurney, *Zool.*, 1884, p. 192. Exhibited by Sharpe, *Proc. Zool. Soc.*, 1884, p. 206 : Borrer, "Birds of Sussex," p. 101. In the collection of Mr. T. J. Monk of Lewes.
 One near St. Leonards, Nov. 13, 1895 : Coburn, *Zool.*, 1896, p. 101. Preserved by the recorder.

Obs. In the former edition of this Handbook, p. 109, which included the Pennsylvanian Pipit (*Anthus ludovicianus*, Gmelin) amongst the rarer visitants to this country, on the strength of certain records which apparently had reference to that species, amongst others I cited Edwards ("Gleanings," ii. p. 185, pl. 247), Montagu ("Orn. Dict." art. "Lark, Red"), and Macgillivray ("Man. Brit. Birds," p. 169). In the opinion of Prof. Newton, however, *Anthus ludovicianus* is "a species not as yet proved to have been observed in Britain" (Yarrell, i. p. 589), and he inclines to the belief

that the so-called Red Lark, *Alauda rubra*, of the older authors (though identified by Macgillivray with the Pennsylvanian Pipit), was probably the vinous-breasted Scandinavian form of the Rock Pipit. On the other hand, I have never seen any example of the last-named bird to which the term "red" could be properly applied. Such a descriptive expression might be more justly bestowed on the pink (or pale vinous) breasted *Anthus spipoletta*, and still more appropriately on *Anthus cervinus* above mentioned. Mr. J. H. Gurney, who examined a bird of the last named species captured by a bird-catcher at Brighton in March 1884, described it (*Zool.*, 1884, p. 192) as having "the whole of the breast richly suffused with *bright rufous*, some of this colour extending to the belly, and even to the eyebrows.

Fam. ALAUDIDÆ.

CRESTED LARK. *Alauda cristata*, Linnæus. Pl. 11, fig. 12. Length, 7 in.; bill, 0·75 in.; wing, 4·25 in.; tarsus, 0·9 in.

Hab. Central and Southern Europe; North Africa.

One, Taney, co. Dublin, Feb. 1836: "W. R." [W. H. Russell], *Dublin Penny Journal*, Feb. 27, 1836, with figure; Ussher, "Birds of Ireland," p. 101.

One, Littlehampton, Sussex: Yarrell, "British Birds," i. p. 632, and figure. Formerly in the collection of F. Bond. Since purchased by Mr. J. Whitaker, of Rainworth.

Two, Penzance, Sept. 1846: Rodd, *Zool.*, 1846, p. 1497.

One, Penzance, Oct. 24, 1850: Rodd, *Zool.*, 1851, p. 3033.

- One, Branton Burrows, Devon, autumn 1855: Mathew, "Birds of Devon," p. 102. In the collection of Mr. Cleveland at Tapley Park, near Bideford.
- One near Shoreham, Oct. 20, 1863: Dawson Rowley, *Ibis*, 1864, p. 224. In the collection of Mr. T. J. Monk, of Lewes.
- One near Falmouth, Dec. 1865: Bullmore, "Cornish Fauna," p. 20; Bidwell, "Visit to Scilly," *Trans. Norf. Nat. Soc.*, iv. p. 201.
- One, Polbreen, Cornwall, June 12, 1880: Herbert Hart, *Zool.*, 1880, p. 302.
- One, Portslade, near Brighton, Oct. 10, 1881: Borrer, *Zool.*, 1881, p. 494, and "Birds of Sussex," p. 112.
- One reared from nest at Ibiston, near Cambridge, and two years old at date of record: Doggett, *Zool.*, 1883, p. 178.

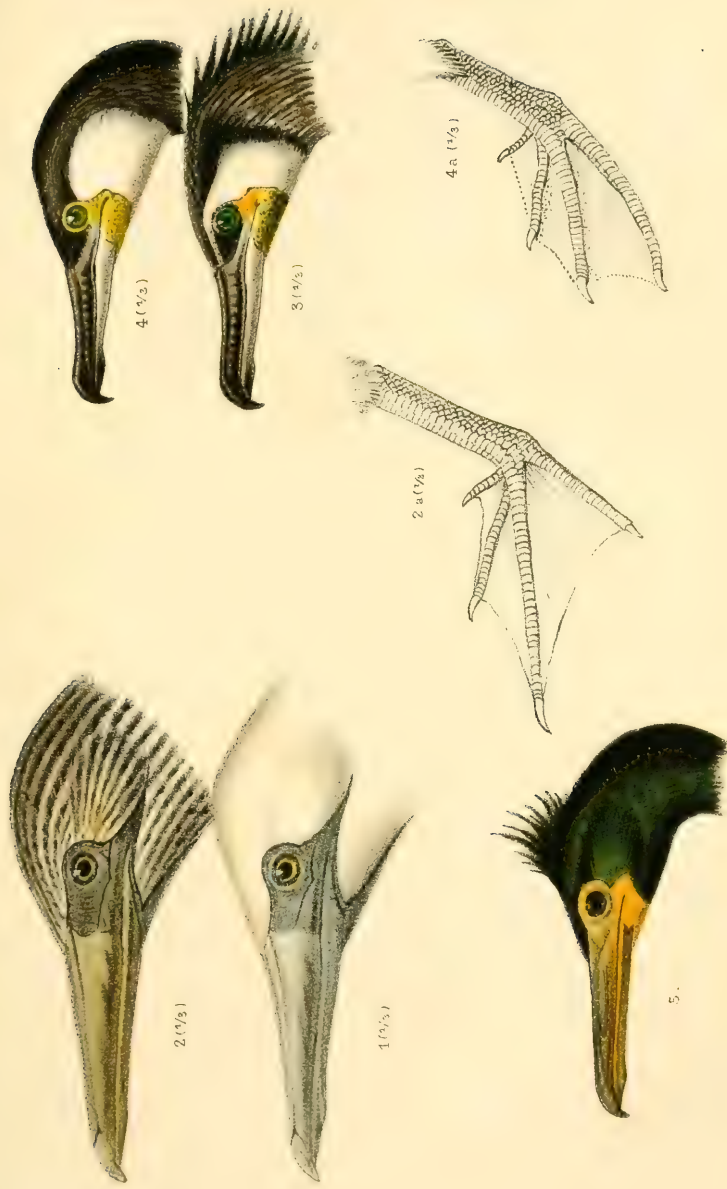
Obs. A common bird in France, it is strange that it has not been more frequently detected in the South of England. Apart from its conspicuous crest (too exaggerated in the accompanying figure, Pl. 11, fig. 12), it may be distinguished from the Sky Lark by the reddish-buff colour of the under surface of the wings, and the comparative shortness of the hind-claws.

SHORT-TOED LARK. *Alauda brachydactyla*, Leisler.

Length, 5.5 in.; bill, 0.4 in.; wing, 3.4 in.; tarsus, 0.75 in.

Hab. Central and Southern Europe; Western Asia, and North Africa in winter.

- One near Shrewsbury, Oct. 25, 1841: Yarrell, "Brit. Birds."
- One near Brighton, Sept. 26, 1854: Hussey, *Zool.*, 1855, p. 4558; Dawson Rowley, *Ibis*, 1859, p. 330.
- One, Scilly, Sept. 23, 1854: Rodd, *Zool.*, 1854, p. 4477, and "Birds of Cornwall," p. 51.
- One, Brighton, April 1858: Dawson Rowley, *l.c.*



1. 2. Gannet, or Solan Goose, ad. juv. & foot. 3. 4. Cormorant, summer & winter & foot.
5. Green Cormorant or Shag, summer plumage

One near Southampton, 1862, another ten years previously: Pemberton Bartlett, *Zool.*, 1862, p. 7930; Wise, "New Forest," p. 315. The first-mentioned bird was taken alive, and an account of its habits in captivity is given on the page indicated.

One, Brighton, Nov. 15, 1873: Dawson Rowley, *Field*, Nov. 22, 1873; Borrer, "Birds of Sussex," p. 113.

One, South Breydon Marshes, Norfolk: Saunders, "Manual Brit. Birds," p. 255.

One taken by a bird-catcher near Cambridge, Nov. 1882: Harting, *Zool.*, 1883, p. 33.

One, Amberley, Sussex, July 18, 1888, netted by a bird-catcher: H. Saunders, *Zool.*, 1888, p. 350.

One, Blackrock Lighthouse, co. Mayo, Oct. 11, 1890: Barington, *Zool.*, 1891, p. 186; the first recorded from Ireland; A. G. More, *Irish Nat.*, 1892, p. 3.

Obs. By some authors the Short-toed Lark has been placed in a different genus from the Skylark, *Alauda*, namely, in the genus *Calandrella*; but apparently on the very slightest grounds. It is evidently a near relative of our Woodlark. It is common in the South of France and in Spain, as well as in North Africa in winter.

CALANDRA LARK. *Alauda calandra*, Linnæus. Length, 8 in.; bill, 0.6 in.; wing, 5 in.; tarsus, 0.9 in.

Hab. Central, Southern, and South-Eastern Europe and through Persia to India.

One, Devonport, near Plymouth: Gatcombe, *Zool.*, 1863, p. 8768; Rowe, "Cat. Birds Devon," 1863, pp. 24, 25.

One near Exeter: Gurney, *Zool.*, 1869, p. 1599; D'Urban and Mathew, "Birds of Devon," p. 103.

Obs. On the subject of these records Professor Newton has the following note: "Two examples of

the Calandra Lark are recorded as having been killed in England, one near Devonport, the other near Exeter. Neither specimen was for some time recognised as belonging to this species, and therefore in each case the chance of a mistake seems possible. Accordingly until the occurrence of this bird in Britain has been better substantiated, the Editor deems its omission from the present work the more prudent course" (Yarrell, vol. i. p. 646).

The *habitat* of the species is given above. Mr. Saunders states that it is a common cage-bird in Spain and Italy, and I saw a great many in Thessaly, where bunches of these birds were hanging up in the markets at Volo and Larissa.

By some authors this species is placed in the genus *Melanocorypha*, an unfortunate name for it, since the Calandra Lark does not happen to have a black crown; moreover, the characters which are said to distinguish it from *Alauda* and *Calandrella* are too insignificant to justify generic separation. The bird is to all intents and purposes a lark, if not a typical one.

SIBERIAN or WHITE-WINGED LARK. *Alauda sibirica* (Gmelin). Length, 7 in.; bill, 0·5 in.; wing, 4·75 in.; tarsus, 0·9 in.

Hab. North-Eastern Europe and Western Asia. Rare in Southern Russia and Turkey in winter.

One captured with Snow Buntings near Brighton, Nov. 22, 1869, at first erroneously reported as a Snow Finch Bond, *Zool.*, 1870, p. 1984, error corrected p. 2022; Dawson Rowley, *tom. cit.*, p. 2066; specimen exhibited

by him, *Proc. Zool. Soc.*, 1870, p. 52. In the collection of Mr. T. J. Monk, of Lewes, through whose courtesy I had an opportunity of examining it.

Obs. This bird was originally described in 1773 by Pallas as a variety of the *Alauda calandra* of Linnæus, which it somewhat resembles. Gmelin some years later (1788), distinguished it from that species under the specific name *sibirica*, indicative of its *habitat*.

Fam. EMBERIZIDÆ.

LITTLE BUNTING. *Emberiza pusilla*, Pallas. Pl. 12, fig. 9. Length, 4·75 in.; bill, 0·4 in.; wing, 2·75 in.; tarsus, 0·8 in.

Hab. Eastern and Southern Europe; Western and Central Asia. Accidental in Western Europe on migration.

One, Brighton, Nov. 1864: *Ibis*, 1865, p. 113; specimen exhibited by Gould, *Proc. Zool. Soc.*, 1864, p. 377, and figured in his "Birds of Great Britain."

Obs. In June 1877 Seebohm found this bird nesting in the valley of the Yenesei (lat. $66\frac{1}{2}$), where in 1895, and again in 1897, Mr. H. L. Popham procured several nests with eggs. For a coloured figure of the egg see Seebohm's "British Birds," vol. iv. pl. 15.

RUSTIC BUNTING. *Emberiza rustica*, Pallas. Length, 5 in.; bill, 0·4 in.; wing, 3 in.; tarsus, 0·75 in.

Hab. Northern and Eastern Europe, Siberia, and Western Asia; wintering in China.

One, Brighton, Oct. 23, 1867: Gould, *Ibis*, 1869, p. 128, and "Birds of Great Britain," figure.

One, Easington, Holderness, Sept. 17, 1881: Eagle Clarke, *Zool.*, 1881, p. 465. In the York Museum.

One taken by a bird-catcher, Elstree Reservoir, Nov. 19, 1882: Lord Lilford, *Zool.*, 1883, p. 33. Figured in his "Coloured Illustrations of British Birds."

BLACK-HEADED BUNTING. *Emberiza melanocephala*, Scopoli. Length, 7 in.; bill, 0·6 in.; wing, 3·6 in.; tarsus, 0·9 in.

Hab. South-Eastern Europe and Western Asia, westward to Southern Germany and the South of France.

One, Brighton Racecourse, Nov. 3, 1868: Gould, *Ibis*, 1869, p. 128; "Birds of Asia," figure, and "Birds of Great Britain," figure. Yarrell, 4th ed., vol. ii. p. 64.

One near Radcliffe, Notts, July 1884: Ashworth, *Zool.*, 1886, p. 73.

Obs. As the name "Black-headed Bunting" properly belongs to this species, our well-known *Emberiza schæniclus* is distinguished in the first part of this volume (p. 75) as the "Reed Bunting."

BRANDT'S BUNTING. *Emberiza cioides*, Brandt. Length, 6·5 in.; bill, 0·4 in.; wing, 3·3 in.; tarsus, 0·75 in.

Hab. Eastern and Central Siberia and China.

One caught alive near Flamborough Head Lighthouse, Nov. 1886: Chase, *Nat.*, 1889, pp. 79, 113, 334, 356; exhibited by Canon Tristram, *Proc. Zool. Soc.*, 1889, p. 6, and figured *Ibis*, 1889, p. 293.

Obs. This is the first recorded occurrence of the species in Europe, its range being apparently con-

fined to Eastern and Central Siberia and China. See Baily, *Naturalist*, 1889, p. 356, and Tristram, *Ibis*, 1889, p. 293, where the bird is figured. See-bohm remarks (*tom. cit.*, p. 296) that the specimen obtained is nearer to the Chinese sub-species, *E. cioides castaneiceps*, than to the typical Siberian form. At all events, the occurrence of either form in the British Islands is sufficiently remarkable; the more so when we consider the non-migratory habits of most of the *Emberizidæ*.

Fam. FRINGILLIDÆ.

SERIN FINCH. *Fringilla serinus*,¹ Linnæus. Length, 4·5 in.; bill, 0·3 in.; wing, 2·75 in.; tarsus, 0·5 in.

Hab. Southern Europe, wintering in North Africa.

One near Portsmouth, April 1852: Rev. W. Hazel, *Nat.*, 1853, p. 20.

One, Brighton Downs, June 20, 1859: Bond, *Zool.*, 1860, p. 7105. In the collection of F. Bond.

One near Hampstead, Oct. 1859: Bond, *l.c.*

Three near Brighton, autumn 1860: Dawson Rowley, *Ibis*, 1861, p. 113.

One, Hove, near Brighton, April 19, 1866: Monk, *Zool.*, 1866, p. 229. In the collection of T. J. Monk.

One, Bishop's Hull, Somerset, winter 1866: Cecil Smith, "Birds of Somersetshire," p. 180.

One, Brighton, April 1869: Bond, *Zool.*, 1870, p. 1984.

One, Worthing, May 4, 1869: Lucas, *Field*, June 12, 1869.

One, Brighton Downs, April 1870. In the collection of F. Bond.

One, Brighton Downs, April 1, 1873: Borrer, "Birds of Sussex," p. 129. In the collection of W. Borrer.

¹ *Serinus hortulanus*, Koch.

One, Great Yarmouth, June 13, 1885 : Stevenson, "Birds of Norfolk," vol. iii. p. 379.

One, Yarmouth, Feb. 5, 1887 : Stevenson, *Zool.*, 1888, p. 84, and *Trans. Norf. Nat. Soc.*, vol. iv. p. 392.

One, Rottingdean, near Brighton, Jan. 27, 1888 : Chase, *Zool.*, 1888, p. 108.

One between Exmouth and Budleigh Salterton, Nov. 29, 1891 : Paisley, *Zool.*, 1892, p. 114.

One near Dublin, Jan. 2, 1893 : Williams, *Zool.*, 1893, p. 108 ; Ussher, "Birds of Ireland," p. 59. In Museum of Science and Art, Dublin.

Obs. There are four small Finches of the Serin type possessing such general resemblance in size and colour, that at first glance they are not easy to distinguish ; and as they are all reported to have been taken in England at various times, and may be again noticed as occasional visitants, it may be well to point out the chief distinguishing characters :—

(1.) The Cape Canary, *Fringilla canicollis* (Swainson), *Serinus canicollis* (Sharpe), a common cage-bird, has a bill like a Greenfinch, *F. chloris*, but smaller ; forehead and chin greenish-yellow ; nape and sides of neck grey ; dorsal plumage greenish-yellow, mixed with ashen-grey ; outer webs of all the black primaries strongly marked with greenish-yellow. Length, 5 in. ; bill, 0·4 ; wing, 3 in. ; tarsus, 0·5 in.

(2.) The Citril Finch of Latham (*Fringilla citrinella*, Linn., *Chrysomitris citrinella*, Sharpe), of Central and Southern Europe, closely resembles the Cape Canary, but has the under parts greener, the dorsal plumage of a greyer tone, and the wing-

feathers not margined so vividly with yellow. The shape of the bill differs in being more like that of a Goldfinch (*Carduelis*). Length, 4·8 in.; bill, 0·3 in.; wing, 3 in.; tarsus, 0·5 in. A bird captured near the racecourse at Brighton, Oct. 14, 1886, and reported as the Citril Finch by Mr. H. Langton (*Zool.*, 1886, p. 490), was on examination pronounced by Dr. Sharpe to be the Cape Canary, and was doubtless an escaped cage-bird. *Zool.*, 1887, p. 72, and 1888, p. 108.

(3.) The Wild Canary, *Fringilla canaria*, Linn. (*Serinus canaria*), found in Madeira, the Canary Isles, and Azores, has a bill like the Cape Canary, but has none of the bright greenish-yellow uniformly distributed over the dorsal plumage (except on the upper tail coverts), and is of a much greyer tone; each feather with a darker centre. Length, 4·6 in.; bill, 0·4 in.; wing, 2·75 in.; tarsus, 0·6 in.

(4.) The Serin, *Fringilla serinus*, Linn. (*Serinus hortulanus*, Koch), is the smallest of the four, with the shortest and thickest bill in proportion to its size; may be at once recognised by the great amount of striation on the flanks, back, and scapulars. Length, 4·5 in.; bill, 0·3 in.; wing, 2·6 in.; tarsus, 0·5 in. For an account of the habits of this bird as observed in the Rhine Valley near Mulhausen, see Macpherson, *Trans. Norf. Nat. Soc.*, vol. iv. p. 473. Hybrids between (3) and (4) have been reported. *Zool.*, 1884, p. 144.

AMERICAN GOLDFINCH. *Carduelis tristis* (Linnæus).

Length, 4·6 in.; bill, 0·4 in.; wing, 3 in.; tarsus, 0·5.

Hab. North America, particularly the Eastern United States; wintering as far north as New England, and as far south as Mexico.

One, Keem Bay, Achill, co. Mayo, Sept. 6, 1894: Sheridan, *Zool.*, 1894, p. 396. This bird was forwarded for my inspection by the late Mr. A. G. More (Sept. 23, 1894), and from the abraded condition of the wing and tail feathers I concluded that it had recently escaped from captivity, probably from the deck of some homeward-bound vessel from America.

NORTHERN REDPOLL. *Linota exilipes* (Coues).

Length, 5 in.; bill, 0·4 in.; wing, 3 in.; tarsus, 0·5 in.

Hab. Northern Europe, Siberia, and North America.

One, Easington, Yorkshire, winter of 1893–1894: Cordeaux, *Naturalist*, 1894, p. 84. Figured by Lord Lilford.

Obs. This form of Redpoll was differentiated in 1861 from the better-known Mealy Redpoll by Elliott Coues, who adopted the generic name *Ægiothus*, Cabanis; though *Linota*, Bonap., has priority. (See p. 81.) See also Newton, "On the European Redpolls," *Zool.*, 1877, pp. 5–7, and Wolley on the seasonal growth of the bill in *Linota linaria*, Yarrell, 4th ed. ii. p. 139.

WHITE-THROATED SPARROW. *Zonotrichia albicollis* (Gmelin).

Length, 6·7 in.; bill, 0·5 in.; wing, 3 in.; tarsus, 0·9 in.

Hab. Eastern United States to the Missouri.

One near Aberdeen, Aug. 17, 1867: Angus, *Proc. Nat. Hist. Soc. Glasgow*, 1868, p. 209, pl. iii. Specimen exhibited

by Prof. Newton, *Proc. Zool. Soc.*, 1870, p. 52. Figured indifferently by Gray, "Birds of West of Scotland." A better figure in Chapman's "Handbook of Birds of Eastern North America," 1895, p. 300.

One near Brighton, May 1872: Dawson Rowley, *Proc. Zool. Soc.*, 1872, p. 681.

One near Hull, Feb. 13, 1893, observed for six weeks previously: Cordeaux, *Zool.*, 1893, p. 149.

Obs. The late Mr. Cordeaux, when reporting the capture of the last-named specimen (*l.c.*), remarked: "The illustration in Gray's 'Birds of the West of Scotland' gives a very poor idea of the beauty of this bird, which is a true Bunting, and in no way deserving the trivial name of 'Sparrow,' which the Americans apply to so many of their Finches and Buntings." It is, however, not placed with the true Buntings in the British Museum Catalogue of Birds, but amongst the *Fringillidæ* in the genus *Zonotrichia*. Latham in 1783 called it the "White-throated Finch," and Gmelin in 1788 described it under the name *Fringilla albicollis*. Audubon also, who had ample opportunities for studying it in North America, regarded it as a Finch (*Fringilla pennsylvanica*); while Edwards long previously (*viz.*, in 1760) described and figured it as the "White-throated Sparrow." Possibly, therefore, it will be productive of less confusion to retain the earliest English name for the species, notwithstanding that it cannot with propriety be included in the genus *Passer*, or be regarded as a British bird.

The term "British" should be restricted to those species of birds which for a longer or shorter period

of the year actually *inhabit* the British Islands. Newton, *Proc. Zool. Soc.*, 1870, p. 52.

SCARLET GROSBEAK. *Pyrrhula erythrina* (Pallas).

Length, 5·5 in.; bill, 0·4 in.; wing, 3·25 in.; tarsus, 0·75 in.

Hab. North-Eastern Europe and Asia, wintering in India and Burma.

One, Brighton, Sept. 1869: Wonfor, *Zool.*, 1869, p. 1918; Bond, *Zool.*, 1870, p. 1984.

One, Caen Wood, Hampstead, Oct. 5, 1870: Bond, *Zool.*, 1870, p. 2383; figured by Gould, "Birds of Great Britain."

One between Yarmouth and Caistor, Sept. 3, 1892: Gurney, *Zool.*, 1892, p. 401, and 1893, p. 150. Lived in confinement nearly four years: Gurney, *Zool.*, 1897, p. 130.

Obs. In the former edition of this "Handbook" this bird was entered as the Rosy Bullfinch, *Carpodacus erythrinus* (Pallas). For the sake of uniformity, however, and in deference to the views of both editors of Yarrell's "British Birds" (4th ed.), I think it desirable to adopt their nomenclature as above given.

PINE GROSBEAK. *Pyrrhula enucleator* (Linnæus).

Length, 8·5 in.; bill, 0·6 in.; wing, 4 in.; tarsus, 0·8 in.

Hab. The north of Europe, Asia, and America.

Several seen in Invercauld Forest, Aberdeen, by Pennant: "Brit. Zool.," vol. i. p. 317; and "Tour in Scotland," 2nd ed., 1772.

Others, Dumfriesshire: Burgess, "List Birds Kirkmichael," 1792, but not included by Sir W. Jardine in his "Fauna of Dumfriesshire."

Several in the woods of Glamis and Lindertis: "Came with Crossbills in great numbers and destroyed the whole of the larch and fir cones for these two years past"—Don, "Fauna of Forfarshire," 1813, p. 43.

One, Cavehill, near Belfast, Dec. 1819: Thompson (on the authority of Templeton), "Nat. Hist. Irel. (Birds)," vol. i. p. 275. (Doubtful.)

One, Bill Quay, Newcastle: Selby, *Trans. Nat. Hist. Soc. Newcastle*, 1831, p. 265. In the collection of Mr. Backhouse, a hen bird of a greenish-yellow colour.

Several seen on the Denes, Yarmouth, Nov. 1822: Paget, "Sketch of Nat. Hist. Yarmouth," p. 6. (Doubtful.)

Two near Yarmouth: Lubbock, "Fauna of Norfolk," p. 36.

Two, Raveningham, Norfolk: Gurney and Fisher, *Zool.*, 1846, p. 1313.¹ Probably the two mentioned by Lubbock, *l.c.*

A flock, Pembrokeshire, visited a hemp-yard, destroying all the hemp-seed: Fox, "Synops. Newcastle Mus.," p. 65. Possibly Crossbills.

One, Worcestershire, prior to 1834: Hastings, "Nat. Hist. Worcestershire (1834)," p. 65. No description of the species, nor particulars of capture.

One or more, Eccles, Berwickshire, prior to 1885: Thomson, "Statistical Account of the Parish of Eccles" (1835). Probably a mistake.

One, Hurlston, Lancashire, prior to 1837: Rylands, *Nat.*, 1837, p. 352. Mitchell, "Birds of Lancashire," p. 75.

One or more, Kent: Pemberton Bartlett, on the authority of Dr. Plomley, *Zool.*, 1844, p. 621.

One, Harrow, Middlesex, prior to 1839: Yarrell, "Hist. Brit. Birds," vol. ii. p. 9; Harting, "Birds of Middlesex," p. 90. In the collection of F. Bond.

One, Rochdale, Lancashire, Feb. 1845: Rev. H. Clarke, *Zool.*, 1845, p. 1025.

¹ With reference to these there appears to be some doubt; cf. Stevenson, "Birds of Norfolk," vol. i. p. 235, where it is also stated that there are two specimens labelled "Norfolk" in the British Museum without any history or date. See *Zool.*, 1890, p. 128.

Two, Ashdown Forest, Sussex, Feb. 1848: Knox, "Orn. Rambles in Sussex," p. 212. (Doubtful.)

One seen near Petworth, Sussex, prior to 1849: Knox, *l.c.* (Doubtful.)

One, Braemar, August 1850, seen by Macgillivray: "Nat. Hist. Deeside," p. 403.

One, Somersetshire: Baker (on the authority of Mr. Austin, of Bridgewater), *Somerset Archæol. Proc.*, 1851, p. 144; D'Urban, *Zool.*, 1890, p. 183.

One, Taunton: Prideaux, *Zool.*, 1852, p. 3474. Seen by Mr. Nicholls, *Zool.*, 1877, p. 248.

One seen at Dunkeld by Col. Drummond Hay, as reported by him to Mr. Gurney, *Zool.*, 1877, p. 248.

Two stated to have been seen amongst spruce firs at King's Sterndale, near Buxton: Punchaby, *Field*, Feb. 4, 1860. Probably Crossbills.

One in the Whitby Museum, shot out of a flock by Mr. Kitching, winter 1861: Clarke and Roebuck, "Hand-book of Yorkshire Vertebrates," p. 31; Gurney, *Zool.*, 1890, p. 126.

Two seen on an *Arbor vitæ* at St. Germain's, Cornwall, Nov. 8, 1868: Gurney, on the authority of Gatcombe, *Zool.*, 1877, p. 248.

Obs. This list has been revised in accordance with the views expressed by Mr. J. H. Gurney in a paper "On the claims of the Pine Grosbeak to be regarded as a British Bird," *Zool.*, 1877, p. 242, and his supplementary remarks, *Zool.*, 1890, p. 125. See also some observations by Mr. D'Urban and Mr. O. V. Aplin, *Zool.*, 1890, pp. 183, 184, on the unreliable nature of certain records relating to Devonshire and Hampshire respectively.

Fam. LOXIIDÆ.

PARROT CROSSBILL. *Loxia pityopsittacus*, Bechstein.

Pl. 11, figs. 5, 6. Length, 6·5 in.; bill, 0·8 in.;
3·9 in.; tarsus, 0·75 in.

Hab. Northern Europe and Western Siberia.

One, Shropshire: Pennant, "Brit. Zool.," 1776, p. 106.

One, Blythburgh, Suffolk, 1818: Rev. Leonard Jenyns. In
the University Museum, Cambridge.

One, Tooting, Surrey, winter 1831: Blyth, *Field Nat.*,
vol. i. pp. 130, 354.

Two, Ross-shire, 1833: Gray, "Birds of West of Scotland,"
p. 154. Figured by Selby.

Two, Caithness: Osborne, *Proc. Roy. Phys. Soc. Edinb.*,
vol. ii. p. 341.

One, New Forest, autumn 1835: Blyth, ed. White's
"Selborne," p. 160, note.

Nine, Dartmoor, 1838: Rowe, "List of Birds of Devon,"
p. 27; D'Urban and Mathew, "Birds of Devon," p. 72.

One, Lymington, Hants, March 1842. In the collection of
the late F. Bond.

Several, Edwinstowe, Notts, 1849: Sterland, "Birds of
Sherwood Forest," p. 126.

One, Harrow, Middlesex, Jan. 1850: Newman, *Zool.*, 1850,
p. 2770; Harting, "Birds of Middlesex," p. 92.

One, Riddlesworth Hall, Norfolk: Stevenson, "Birds of
Norfolk," vol. i. p. 239.

One, Saxham, Suffolk, Nov. 1850: Newton, *Zool.*, 1851,
p. 3145. In the Cambridge Museum.

Several, Breamore, Hants, Nov. 1855: Wise, "New Forest,"
1867, p. 315.

One, Bognor, Sussex, Nov. 1859: *Zool.*, 1859, p. 6329.

Three near Epping, Sept. 1861: Doubleday, *Zool.*, 1861,
p. 7759; Christy, "Birds of Essex," p. 126.

One, Sizewell Belts, Suffolk, Nov. 1861. In collection
of the late N. F. Hele, of Aldeburgh, Ipswich Museum.

Several, Wemyss Bay, Firth of Clyde, spring 1862: Gray, "Birds of West of Scotland," p. 154.

One near Shifnal, Shropshire, 1862: Beckwith, "Birds of Shropshire," p. 377.

Three, Cheltenham, 1862: Guise, *Zool.*, 1862, p. 7844.

Three, Colchester, Feb. 1862: Bree, *Zool.*, 1862, p. 8032.

Two, Christchurch, Hants, 1862. In the collection of the late F. Bond.

A pair, Southgate, Middlesex, Nov. 1864. The male, formerly in the collection of F. Bond, now in the possession of J. H. Gurney.

Two, Oswestry, no date mentioned: Rocke, *Zool.*, 1865, p. 9781; Beckwith, "Birds of Shropshire," p. 377.

One, Flamborough, Aug. 1866: Boulton, *Zool.*, 1867, p. 543.

One, (?) Melton, Suffolk, Jan. 1869: Clark Kennedy, *Zool.*, 1869, p. 1700.

One, Erringham, near Shoreham. In collection W. Borrer.

One, St. Leonard's Forest, Sussex, March 1870. In the same collection.

Several, Marley, near Exmouth, Jan. 1888: D'Urban and Mathew, "Birds of Devon," p. 73.

One, Parsonstown, Ireland, Jan. 1889: *Zool.*, 1889, p. 181.

Obs. In *The Zoologist* for 1863, p. 8845, and in Gould's "Birds of Great Britain," mention is made of several Parrot Crossbills killed at Brandon, Suffolk, in October 1863 and March 1864; but these subsequently proved to be only large varieties of the Common Crossbill (*cf.* Stevenson, "Birds of Norfolk," vol. i. pp. 239, 240). By some naturalists the Parrot Crossbill is considered to be merely a large race of the Common Crossbill, and not entitled to specific rank. See the remarks on this point, *anted*, p. 90.

TWO-BARRED CROSSBILL. *Loxia bifasciata*, Brehm.
Length, 6 in.; bill, 0·7 in.; wing, 3·75 in.; tarsus,
0·7 in.

Hab. Northern Europe and Asia.

One near Belfast, Jan. 11, 1802: Templeton, *Trans. Linn. Soc.*, vol. vii. p. 309; Thompson, "Nat. Hist. Irel. (Birds)," vol. i. p. 283.

Five or six seen, one shot, near Ipswich: Yarrell, *vide* Hoy.
One, Birmingham: Yarrell, *op. cit.*

One, Lariggan, Cornwall, 1843: Rodd, *Zool.*, 1843, p. 142.

Two, Isle of Wight, 1844: Bury, *Zool.*, 1844, p. 643; A. G.
More in Venable's "Guide to Isle of Wight," p. 430.

One, Unsted Wood, Surrey: Salmon, "Letters of Rusticus." In the collection of Mr. H. F. Nicholson, of Waverley Abbey, Surrey.

One, Godalming, Surrey, from a flock of Common Crossbills. In the collection of W. Borrer.

One, Bury St. Edmunds, May 1846; Hunter, *Zool.*, 1846, p. 1498; Stevenson, "Birds of Norfolk," vol. i. p. 243.

One, Mickleover, near Derby, Nov. 1845: Bell, *Zool.*, 1846, p. 1247; Whitlock, "Birds of Derbyshire," p. 94.

Nine, Brampton, near Carlisle, autumn 1845: Cooper, *Zool.*, 1846, p. 1551; Hodgkinson, *Zool.*, 1847, p. 1638. Two of these are figured by Yarrell.

One shot by Doubleday at Epping: Yarrell, *op. cit.*

Four or five seen, one shot, near Thetford, May 10, 1846: Hunter, *Zool.*, 1846, p. 1498; Stevenson, *op. cit.*, p. 242.

Three from a flock, Drinkston, near Bury, Suffolk, May 1846: Bree, *Zool.*, p. 1498, and 1849, p. 2419. Specimens in collections of Bree, Gurney, and Stevenson.

One near Taunton, 1851: Prideaux, *Zool.*, 1852, p. 3474.

One, co. Antrim, 1867: Blake Knox, *Zool.*, 1868, p. 1376.

One flew on board a vessel in the North Sea, Oct. 1870: Stevenson, *Trans. Norf. Nat. Soc.*, 1873, p. 117.

One near Easington, Yorkshire, Aug. 12, 1889: Slater, *Nat.*, 1889, p. 314.

Two from flock of eight near Croydon, Nov. 1889: *Field*, Nov. 30, 1889.

One, South Cockerington, near Louth, autumn 1889: Cordeaux, *Nat.*, 1890, pp. 2-5.

Two, Frith Hill, near Godalming, Nov. 28, 1889: Benson, *Zool.*, 1890, p. 17.

One near Sawbridgeworth, Herts, Jan. 11, 1890: Rivers, *Zool.*, 1893, p. 27. Recorded as *L. leucoptera*, but identified by Hartert as this species. Cf. Crossman, *Trans. Herts Nat. Hist. Soc.*, 1896, pp. 74, 75.

One, co. Fermanagh, Feb. 17, 1895, C. Langham: Ussher, "Birds of Ireland," p. 74.

WHITE - WINGED CROSSBILL. *Loxia leucoptera*, Gmelin. Length, 6 in.; bill, 0·7 in.; wing, 3·5 in.; tarsus, 0·6 in.

Hab. Northern parts of North America.

One near Worcester, 1836. In the Strickland collection, Cambridge Museum.

One near Jedburgh, Roxburghshire, Feb. 1841: R. Gray, "Birds of West of Scotland," p. 155.

One, Exmouth, Oct. 17, 1845: Fitton, *Zool.*, 1845, p. 1190.

Four from a flock, Cowick, near Snaith, Yorkshire, Dec. 27, 1845: Milner, *Zool.*, 1847, p. 1694.

Four, Edwinstowe, Notts, April 1849: Sterland, "Birds of Sherwood Forest," p. 126.

A flock near Banff, 1859: Edward, *Zool.*, 1859, p. 6631.

One, Yarmouth, Oct. 9, 1872: Stevenson, *Trans. Norf. Nat. Soc.*, 1873, p. 118.

Obs. Some years since Dr. Dewar of Glasgow, when 600 miles off Newfoundland, observed a number of these birds crossing the Atlantic before a stiff westerly breeze. Many alighted on the rigging, and ten or twelve specimens were secured. Of these, two escaped as the ship neared Ireland,



1. Common Tern, ad. 2. Arctic Tern, juv. 3. 3a. Lesser Tern. 4. Sandwich Tern. 5. 5a. Caspian Tern.
6. 6a. Gull-billed Tern. 7. 8. 8a. Black Tern, ad. juv. & foot.

and made for the land; two others flew out of their cage while being conveyed through Liverpool. The rest lived for some time in confinement.

Fam. ICTERIDÆ.

RED-WINGED STARLING. *Agelæus phœniceus*, Vieill.

Length, 8·5 in.; bill, 0·75 in.; wing, 4·5 in.; tarsus, 1 in.

Hab. North and Central America, from the Atlantic to the Pacific.

One near London: Albin, "Hist. Birds," vol. i. p. 36.

One, Barton Broad, Norfolk, June 1843: Gurney, *Zool.*, 1843, p. 317, and 1864, p. 9024; Stevenson, "Birds of Norfolk," vol. i. p. 244.

One, Shepherds Bush, Middlesex, autumn 1844: Yarrell, "Brit. Birds;" Harting, "Birds of Middlesex," p. 92.

One, Sidlesham, Sussex, Dec. 26, 1863: Jeffery, *Zool.*, 1864, p. 8951; Borrer, "Birds of Sussex," p. 141.

One, Romney, Kent, June 1864 or 1865. Mr. J. H. Gurney, jun., saw this specimen while in the hands of a bird-stuffer at Rye.

One, Liphook, Hants, May 16, 1865: Jesse, *Zool.*, 1865, p. 9782.

One, Hove, near Brighton, March 21, 1866: Monk, *Zool.*, 1866, p. 229; Borrer, "Birds of Sussex," p. 141.

One near Banff, June 12, 1866: Edward, *Zool.*, 1866, p. 310.

One captured at the Nash Lighthouse, in the Bristol Channel, Oct. 27, 1866 (at 3 A.M.): D'Urban and Mathew, "Birds of Devon," p. 437.

One seen in Haddingtonshire: Gray, "Birds of West of Scotland," p. 156.

One picked up dead at Adwick le Street, between Askern and Barnsley, March 31, 1877. In the collection of J. Whitaker, of Rainworth, Notts.

One near Bovingdon, Herts, spring of 1879; Littleboy, *Zool.*, 1881, p. 64.

One, Swanpool, Falmouth, Cornwall, Aug. 1881: Harting, *Zool.*, 1881, p. 384.

AMERICAN MEADOW STARLING. *Sturnella magna* (Linnæus). Length, 9 in.; bill, 1·35 in.; wing, 4·5 in.; tarsus, 1·4 in.

Hab. Eastern United States to the High Central Plains.

One, Thrandeston, Suffolk: Selater, *Ibis*, 1861, p. 176.

One seen, South Walsham, Norfolk, Selater, *l.c.*

One near Cheltenham, many years ago: Lloyd, *Field*, March 11, 1871; Newman, *Zool.*, 1871, p. 2557.

This specimen was forwarded by Mr. Lloyd for my inspection, and to be named, in March 1871. All of them doubtless escaped cage-birds.

Elliott Coues remarks ("Key to N. Amer. Birds") that this species varies greatly in size, like *Agelæus*, and that Southern specimens are much smaller than Northern ones.

Fam. CORVIDÆ.

NUTCRACKER. *Nucifraga caryocatactes* (Linnæus). Length, 13 in.; bill, 1·9 in.; wing, 7·25 in.; tarsus, 1·2 in.

Hab. Northern and Central Europe; Northern Asia, ranging to North China.

One near Mostyn, Flintshire, Oct. 5, 1753: Pennant, "Brit. Zool.," vol. ii. p. 265 (1766), 1st ed. p. 78 note.

One, Kent: Latham, "Synopsis," vol. i. p. 400 (1781).

One seen near Bridgewater, autumn 1805: Montagu, "Orn. Dict. Suppl.," 1813; Cecil Smith, "Birds of Somersetshire," p. 242.

- One, North Devon, August 1808 : Montagu, *op. cit.*, figured by Graves, "Brit. Orn.," vol. i. (1821).
- One, Cornwall : *Monthly Magazine*, Dec. 1808.
- One seen near Hooe Lake, in the parish of Plymstock, South Devon : D'Urban, "Birds of Devon," p. 85.
- One seen in Netherwitton Wood, Northumberland, autumn 1819 : Selby, "Illustr. Brit. Orn.," vol. i. p. 368.
- One near Washford Pyne Moor, Devon, 1829 : Moore, "Cat. Birds Devon," *Mag. Nat. Hist.*, 1837, p. 179.
- One, Elstead, Surrey, 1839 : Bucknill, "Birds of Surrey," p. 72. In the Charterhouse collection.
- One near Pepper-Harrow Park, Godalming, prior to 1837 : "Letters of Rusticus," p. 158 ; and Bucknill, "Birds of Surrey," p. 72.
- One, Campsall, Yorkshire : Lankester's "Account of As-kern," 1842, p. 70 ; Clarke and Roebuck, p. 35.
- One near Sleaford, Lincolnshire, March 1833 : Fieldsend, *Zool.*, 1893, p. 153.
- One, Rollesby, near Yarmouth, Oct. 30, 1844 : Fisher, *Zool.*, 1845, p. 824 : Stevenson, "Birds of Norfolk," vol. i. p. 282.
- One near Alfriston, Littlington, Sussex, Sept. 1844 : Borrer, *Zool.*, 1845, p. 868, and "Birds of Sussex," p. 156, fig.
- One seen near Guildford : Bucknill, "Birds of Surrey," p. 72.
- Three, Scotland : Macgillivray, "Hist. Brit. Birds," vol. i. p. 584 ; Gray, "Birds of West of Scotland," p. 188.
- One, Clandon Common, Surrey, 1847 : Webb, *Zool.*, 1850, p. 2914 ; Bucknill, "Birds of Surrey," p. 72.
- One off Yarmouth, Oct. 7, 1853 : Green, *Zool.*, 1853, p. 4096 ; Gurney, *tom. cit.*, p. 4124.
- One near Whitehaven, no date mentioned : Robson, *Zool.*, 1854, p. 4168.
- One, Wisbeach, Nov. 8, 1859 : Foster, *Zool.*, 1859, p. 6809.
- One seen, Saltram, Devon, Oct. 1862 : Rowe, "List of Birds of Devon," p. 28.
- One, Gorleston, near Yarmouth, Oct. 8, 1864 : Stevenson, *Zool.*, 1865, p. 9045 ; "Birds of Norfolk," vol. i. p. 283.

- One near Wakefield, autumn 1865: purchased by me in May 1866 of George Lumb, Wakefield, who had it in the flesh.
- One, Invergarry, Inverness-shire, Oct. 1868: Harvie-Brown, *Zool.*, 1868, pp. 1484 and 1519; *op. cit.* Seen in the collection of Sir John Crewe, of Calke Abbey.
- One, Christchurch, Hants, Nov. 6, 1868: Gurney, *Zool.*, 1868, p. 1481, and 1869, p. 1511.
- One seen, Kingscliff Woods, near North Petherton, Somerset, Aug. 4, 1873: J. C. Melvill, *Field*, Aug. 9, 1873; *Zool.*, 1873, p. 3689.
- One, Pontrhydyrun Wood, Monmouth. In the Cardiff Museum.
- One, near Eddington, Kent, Nov. 17, 1885: *Zool.*, 1885, p. 480.
- One, Exbury, Hants, Feb. 8, 1886: Renshaw, *Zool.*, 1886, p. 182.
- One, Marsh Chapel, Lincolnshire, Nov. 6, 1888: Caton Haigh, *Zool.*, 1889, p. 153, and Cordeaux, *Nat.*, 1889, p. 44.
- One, near Swansea: Drane, "Birds of Glamorgan," 1900, p. 67. In the Cardiff Museum.

Obs. Examples from Scandinavia are said to possess shorter and stouter bills than those found in Central Europe, on which account the two forms have been specifically separated, though with what justice I am unable to say, not having examined a sufficiently large series. It is possible that this variation may depend upon sex. Both forms have been procured in this country. On this subject the reader may be referred to De Selys Longchamps (*Bull. Acad. Sci. Bruxelles*, tom. xi. No. 10); Fisher, "On the Two Species or Varieties of the Nutcracker" (*Zool.*, 1845, p. 1073); Stejneger, "On the Eastern

and Western Forms of the Nutcracker," *Proc. U. S. Nat. Mus.*, 1889, pp. 425-432, and *Zool.*, 1889, pp. 441-449.

For an account of the discovery of the nest of the Nutcracker by Theobald and Fischer, see Newton, *Proc. Zool. Soc.*, 1867, p. 162, and Yarrell, "Brit. Birds," 4th ed. Some recent notes on the habits of this bird, as observed in the Riffel Alp, Canton Valley, Switzerland, are given by Mr. Sclater, *Zool.*, 1898, p. 474.

Fam. HIRUNDINIDÆ.

PURPLE MARTIN. *Hirundo purpurea* (Linnæus).

Length, 7·5 in.; bill, 0·5 in.; wing, 5·75 in.; tarsus, 0·5 in.

Hab. North America generally, wintering in South America, Brazil, and Cuba.

One, Kingston, co. Dublin, 1840: Yarrell, *vide* F. M'Coy, "Hist. Brit. Birds.;" Ussher, "Birds of Ireland," p. 399. In the Museum of Science and Art, Dublin.

One, Colne Bridge, Huddersfield, 1854: Hobkirk, "Huddersfield, its Hist. and Nat. Hist.," 1859, p. 144; 1868, p. 218. (Doubtful.)

Obs. Two others are mentioned by Yarrell as having been obtained at Kingsbury Reservoir, Middlesex, in Sept. 1842; but his credulity was imposed upon by the production of relaxed skins obtained from a dealer. A specimen of doubtful authenticity, said to have been shot near Macclesfield, was sold at Stevens's, with other birds from the Macclesfield Museum, on June 14, 1861, and realised £1, 8s.

WHITE-BELLIED SWALLOW. *Hirundo bicolor*, Vieillot. Length, 5·3 in.; bill, 0·3 in.; wing, 4·5 in.; tarsus, 0·4 in.

Hab. North America, from Atlantic to Pacific, wintering in Central America to Guatemala.

One near Derby, 1850: Wolley, *Zool.*, 1853, p. 3806; Newton, *Proc. Zool. Soc.*, 1860, p. 131; *Zool.*, 1860, p. 7145.

ORDER III. PICARIÆ

Fam. CYPSELIDÆ.

ALPINE SWIFT. *Cypselus melba* (Linnaeus). Length, 8·5 in.; bill, 0·4 in.; wing, 8·3 in.; tarsus, 0·6 in.; extent of wing, 18 in.

Hab. Central and Southern Europe, Western Asia, and Africa in winter.

One, Dover, Aug. 20, 1830: "Note-book of a Naturalist," p. 226.

One, Buckenham, Norfolk, Fulcher, Sept. 1831: Old Buckenham, near Attleborough, Oct. 13, 1831: Rennie's *Field Nat. Mag.*, vol. i. pp. 172, 173, with figure.

One, Rathfarnham, near Dublin, March 1833: *Dublin Penny Journal*, 1833; Yarrell, *op. cit.*

One, Angel Hill, Bury St. Edmunds, 1835: Babington, "Birds of Suffolk," p. 236.

One, Saffron Walden, Essex, July 1838: Macgillivray, "Hist. Brit. Birds," vol. iii. p. 613; Christy, p. 145.

One, Leicester, Sept. 23, 1839: Macgillivray, *op. cit.*

One seen, Kingsbury Reservoir, Aug. 1841: and one reported by W. Wheeler of Reading as shot next day at Chobham, Surrey: Harting, "Birds of Middlesex," p. 128. But see correction, *Zool.*, 1889, p. 415. Mr. Gurney suggests this may be the bird recorded by

- Yarrell as having been killed at Oakingham on Oct. 8, 1841 (Preface, 1st edition, p. ix.).
- One, 40 miles west of Land's End, June 1842: Couch, "Cornish Fauna," p. 147; Rodd, p. 70.
- One, Cambridge, May 1844: Fitton, *Zool.*, 1845, p. 1191.
- One near Doneraile, co. Cork, June 1844: Thompson, "Nat. Hist. Irel. (Birds)," vol. i. p. 418; Ussher, p. 104.
- One, St. Leonards-on-Sea, Oct. 1851: Ellman, *Zool.*, 1852, p. 3330; Borrer, "Birds of Sussex," p. 164.
- One, Axbridge, Somersetshire: exhibited at Somerset Archæol. and Nat. Hist. Soc., 1851, *Naturalist*, 1851, p. 234, and Cecil Smith, "Birds of Somersetshire," p. 287.
- One, Mylor, Cornwall, summer 1859: Bullmore, "Cornish Fauna," p. 24; Rodd, "Birds of Cornwall," p. 70.
- One, Finchley, August 1860: Sterland, *Field*, March 13, 1875; *Zool.*, 1879, p. 489. In collection of J. Whitaker of Rainworth, Notts.
- One, Hulme, near Manchester, Oct. 18, 1863: Carter, *Zool.*, 1863, p. 8846; Mitchell, "Birds of Lancashire," p. 102.
- One near Lough Neagh, May 1866: Howard Saunders, *Zool.*, 1866, p. 389; Ussher, "Birds of Ireland," p. 104.
- One near Weston-super-Mare: Cecil Smith, "Birds of Somersetshire," p. 287.
- Several seen, Isles of Arran, west coast of Ireland, July 1866: Blake Knox, *Zool.*, 1866, p. 456.
- Several seen, Achill Island, co. Mayo: Blake Knox, *tom. cit.*, p. 523.
- One near the Lizard, Cornwall: Rodd, "List Birds Cornwall," 2nd ed., p. 23; "Birds of Cornwall," p. 70.
- One, Aldeburgh, Suffolk, Sept. 8, 1870: Hele, *Field*, Sept. 17, 1870; *Zool.*, 1870, p. 2344.
- One seen, Colchester, June 8, 1871: Bree, *Field*, June 17, 1871; Christy, "Birds of Essex," p. 145.
- One seen, Norwich, June 1871, on two occasions: Stevenson, *Trans. Norf. Nat. Soc.*, 1872-73, p. 117.
- One seen, South Point, Durham, July 24, 1871: Crawhall, *Field*, Aug. 5, 1871.

- One seen by Bartlett in Kent in June 1871: Gurney, *Zool.*, 1876, p. 5046.
- One, Riponden, near Halifax, autumn 1872. In possession of Mr. Priestley (*vide* W. E. Clarke).
- One, Yarmouth, Sept. 9, 1872: Stevenson, *Zool.*, 1872, p. 3319, and *Trans. Norf. Nat. Soc.*, 1872-73, p. 117; Gurney, *Zool.*, 1876, p. 5046.
- One shot, two others seen, Ilfracombe, Oct. 4, 1876: Rawson, *Zool.*, 1880, p. 108.
- One seen at Scarborough, April 17, 1880: West, *Zool.*, 1880, p. 407.
- One, Wickhambrook, Suffolk, June 1881: Babington, "Birds of Suffolk," p. 236.
- One, Alnmouth, July 1882: Archer, *Field*, July 29, 1882.
- One, Staines, Middlesex, May 19, 1895: Pettitt, *Field*, June 15, 1895.

NEEDLE-TAILED SWIFT. *Chaturus caudacuta* (Latham). Length, 8 in.; bill, 0.4 in.; wing, 8.2 in.; tarsus, 0.6 in.

Hab. Eastern Siberia, South-Eastern Mongolia, India, Persia, China, and Japan; wintering in Australia.

One, Great Horkesley, near Colchester, July 8, 1846: Catchpool, *Zool.*, 1846, p. 1492: Newman, *Zool.*, 1863, p. 8329. Examined in the flesh by Messrs. Yarrell, Fisher, Doubleday, and Newman.

Two seen and one shot at Ringwood, Hants, July 26, 1879: Corbin, *Zool.*, 1880, p. 81 (figured). Forwarded for my inspection and exhibited by Prof. Newton at a meeting of the Zoological Society, *Proc. Zool. Soc.*, Jan. 6, 1880.

Obs. As to the *habitat* of this species see Blyth, *Zool.*, 1863, p. 8329, and Newton in Yarrell's "Brit. Birds," 4th ed., vol. ii. p. 371.

Fam. CAPRIMULGIDÆ.

RUFOUS-NAPED NIGHTJAR. *Caprimulgus ruficollis*, Temminck. Length, 12 in.; bill, 0·5 in.; wing, 8 in.; tarsus, 0·75 in.

Hab. South-Western Europe, south of Spain and Portugal, Malta, and North-West Africa.

One, Killingworth, near Newcastle, Oct. 6, 1856: Hancock, *Ibis*, 1862, p. 39; *Trans. Tyneside Nat. Field Club*, 1862, p. 84; "Birds of Northumberland," p. 83; Gould, "Birds of Great Britain," figure.

Obs. Mr. Hancock observes (*loc. cit.*):—"I am far from believing that this is really its first occurrence in our island. It very closely resembles *Caprimulgus europæus*, and is almost sure to be confounded with that species by the casual observer." It is said to be distinguishable by its smaller size, and by the lighter colour of its plumage (*Ibis*, 1866, p. 180).

EGYPTIAN NIGHTJAR. *Caprimulgus ægyptius*, Lichtenstein. Length, 10·5 in.; bill, 0·4 in.; wing, 7·75 in.; tarsus, 0·8 in.

Hab. Algiers, Tunis, Egypt, Nubia, Turkestan, Afghanistan, and Beluchistan.

One, Rainworth, near Mansfield, Notts, June 26, 1883: Harting, *Field*, Sept. 15, 1883; *Zool.*, 1883, p. 374; Saunders' "Manual," p. 260. In the collection of Mr. Whitaker, of Rainworth, Notts.

Fam. PICIDÆ.

GREAT BLACK WOODPECKER. *Picus martius*,
Linnæus. Pl. 16, figs. 1, 2. Length, 17 in.; bill,
2.45 in.; wing, 9 in.; tarsus, 1.4 in.

Hab. In Europe, from the Arctic circle to Spain, and
in Asia from Turkey to Japan.

One or more, Devonshire, 1785-90 : Latham, "Gen. Syn.
Suppl.," p. 104.

One shot at Blandford, Dorset : Pulteney, "Catalogue of
the Birds of Dorset," 1799, p. 6.

One shot at Whitchurch, Dorset, 1799 : Pulteney, *l.c.*

One said to have been shot in Lancashire by Lord Stanley :
Montagu, "Orn. Dict. Suppl.," 1813 ; Latham, "Gen.
Hist. Birds," 1822, vol. iii., p. 430 ; and Collingwood,
"Hist. Faun. Lancashire and Cheshire," p. 16 ; but it
was found that in Lord Stanley's copy of Latham's
work he had erased the passage and written in the
margin, "a mistaken idea ;" *Zool.*, 1865, p. 9626.

One shot on the trunk of an old willow tree in Battersea
Fields, Middlesex, in the winter of 1805 : Montagu,
op. cit. The record of an accurate naturalist, although
he does not state that he saw the bird.

One formerly in the collection of Donovan, and now in the
Derby Museum, Liverpool ; said to have been killed
in this country : Yarrell, "Hist. Brit. Birds," 3rd ed.,
vol. ii. p. 138.

One or more considered by Yarrell to have occurred in
Scotland, from a statement by Sir Robert Sibbald in
his *Historia Animalium in Scotia*, p. 15 ; but this
statement is shown to have been misconstrued : E. C.
Buxton, *Zool.*, 1865, p. 9730. See also Newton in
Yarrell's "British Birds," 4th ed., vol. ii. p. 483.

One shot near Crediton, in collection of Mr. Newton, of
Okehampton, Devon : Rowe, "Nat. Hist. Dartmoor,"
p. 233 : Rodd, *Field*, Oct. 28, 1865, p. 308. This bird

is still in possession of Mr. Newton's family, and was seen by the Rev. M. A. Mathew, who informed me of the fact.

Two killed in Yorkshire: Fothergill, "Orn. Brit.," 1799, p. 3; Yarrell, 1843, *op. cit.*

One in Lincolnshire: Yarrell, *op. cit.*; but not included by Cordeaux in his "Birds of the Humber District."

One shot near London about 1830: Blyth, *Field Nat.*, p. 49.

Two reported to have been killed in a wood near Scole, in Norfolk (Adam White, *Trans. Linn. Soc.*, Nov. 1835), but according to the shooter the species was *Picus major*: Stevenson, *Zool.*, 1864, p. 9248, and "Birds of Norfolk," vol. i. p. 291.

One seen several times in the Home Park, Windsor, April 1844: Clark Kennedy, "Birds of Berks and Bucks," p. 178, who was informed by the observer, Mr. Walter.

One shot at Shanklin, Isle of Wight, "many years" prior to 1845: Bury, *Zool.*, 1845, p. 915; A. G. More in Venable's "Guide to Isle of Wight," p. 430.

One seen several times in Caen Wood, Hampstead, May 1845, by W. Spencer, whose brother was gamekeeper to the owner of the wood, the late Lord Mansfield: Harting, *Zool.*, 1865, p. 9731, and "Birds of Middlesex," p. 112.

Two shot near Nottingham. Macgillivray thus refers to them ("Hist. Brit. Birds," vol. iii. p. 79):—"Two specimens in my collection, a male and female, which I purchased from Dr. Madden, to whom they had been sent by their owner as having been shot near Nottingham. That gentleman afterwards obtained for me a certificate of the fact by the person who had procured them."

One or more, Worcestershire. "Of unfrequent occurrence," Hastings, "Nat. Hist. Worcester," p. 66.

One killed, Ripley, near Knaresborough, March 1846: Garth, *Zool.*, 1846, p. 1298; Clarke and Roebuck, p. 37.

- One, Audley End, near Saffron Walden, June 5, 1847: Newton, *Zool.*, 1851, p. 3278.
- One, Claremont, Surrey, prior to 1850: M'Intosh, *Nat.*, 1851, p. 20. Asserted by Henry Doubleday to be a mistake (*Gardener's Chronicle*, 1851), but insisted upon by M'Intosh (*tom. cit.*, p. 91), who refers to a specimen preserved at an inn at Esher.
- Two seen at Yarm, Yorkshire: Hogg, *Zool.*, 1845, p. 1107, "Catalogue of Birds S.E. Durham," p. 16; Hewitson, "Eggs of British Birds," p. 193.
- One, Somersetshire: *Somerset Archæol. Proc.*, p. 144.
- One, Belmont, Unst, Shetland: Crotch, *Zool.*, 1861, p. 7341. This was probably *Dendrocopus major*.
- One seen in Pignel Wood, near Brockenhurst, New Forest, and eggs taken June 9, 1862: Farren, *Zool.*, 1862, p. 8091; and Wise, "New Forest," p. 272. A very circumstantial but incredible account.
- Two "frequently seen near Christchurch, Hants:" Yarrell, *op. cit.*, and Wise, *l.c.* One shot, and in the collection of Lord Malmesbury at Heron Court.
- One seen in Ditton Park, March 1867: Clark Kennedy, *l.c.*
- One reported to have been shot at Binstead, Hants, Nov. 1868, Gould, *Zool.*, 1869, p. 1516, but subsequently admitted to have been purchased in Leadenhall Market, and to have come from Sweden with Capercaillie: Gurney, *Zool.*, 1869, p. 1515; Rodd, *Zool.*, 1869, p. 1562.
- One, Otley, Yorkshire, Sept. 8, 1897. This bird was shot in the presence of Col. W. C. Dawson, of Weston Hall, Otley, who obligingly forwarded it for my inspection, and I exhibited it at a meeting of the Linnean Society on the 18th November following. A bird of this species had been lost from the Regent's Park Zoological Gardens, but on inquiry it was found that it did not escape until Oct. 9, a month after Col. Dawson's bird had been shot. See *Proc. Linn. Soc.*, 1897-98, p. 2.

Obs. See Mr. J. H. Gurney's criticism on the reported occurrences of this bird in Sharpe and

Dresser's "Birds of Europe," which, according to Prof. Newton (Yarrell's "Birds," ii. p. 482), "completely disposes of the claims set up in nearly every instance." See also my article on the Great Black Woodpecker, *Zool.*, 1865.

MIDDLE SPOTTED WOODPECKER *Dendrocopus medius* (Linnæus). Pl. 16, fig. 11. Length, 8·25 in.; bill, 1 in.; wing, 4·8 in.; tarsus, 0·8 in.

Hab. Western and Southern Europe, north to Finland, east to the Caucasus.

One, Lancashire: Pennant, "Brit. Zool," vol. i. p. 180.

One, Dorsetshire: Pulteney, "Cat. Birds Dorset," p. 6.

One, Inverness-shire: St. John, "Nat. Hist. Highlands," p. 76.

Two, Middlesex: Harting, "Birds of Middlesex," p. 108.

Obs. Although, some years since, I included this species in my "Birds of Middlesex," p. 108, upon what appeared at the time to be a sufficient warranty, I think, on maturer consideration, that the species has no sufficient claim to be regarded as "British." In all probability the birds above referred to were the young of the Great Spotted Woodpecker. Compare figs. 10 and 11. Since the first edition of this "Handbook" appeared, I have seen a reputed specimen of the White-backed Woodpecker (*D. leuconotus*), which was shot at Halligarth, Shetland, in Sept. 1861, by Dr. Saxby. He took it to be the young of *D. major*, and was probably right, although Gould identified it as *D. leuconotus* (*Zool.*, 1861, p. 7754, and 1862, p. 7932). See also Gurney, *Zool.*, 1875, p. 4695.

The Grey Woodpecker (*Picus canus*, Pl. 16, figs. 6, 7) is not known to have occurred in the British Islands, and is here figured merely for the sake of comparison.

HAIRY WOODPECKER. *Dendrocopus villosus* (Linnaeus). Length, 8·5 in.: bill, 1·25 in.: wing, 4·8 in.: tarsus, 0·8 in.

Hab. North America, to the eastern base of the Rocky Mountains. A good figure in Chapman's "Handbook of Birds of Eastern North America," 1895, p. 229.

A pair, Halifax, Yorkshire, in collection of Duchess of Portland: Latham, "Gen. Syn.," vol. ii. p. 578; and "Ind. Orn.," vol. i. p. 232. At this lapse of time it is impossible to say whether the species was correctly determined. If so, it may have been received from Halifax, Nova Scotia.

One near Whitby, Yorkshire, 1849, received from a dealer: Higgins, *Zool.*, 1849, p. 2496; Bird, p. 2527; Newman, *Zool.*, 1851, p. 2985; Bird, *tom. cit.*, p. 3034. In the British Museum, but history doubtful.

One, supposed, near Chipping Norton, Oxfordshire: Aplin, *Zool.*, 1882, p. 69: "Birds of Oxfordshire," 1889, p. 212. Of doubtful authenticity.

DOWNY WOODPECKER. *Dendrocopus pubescens* (Linnaeus). Length, 6 in.; bill, 0·6 in.; wing, 3·75 in.; tarsus, 0·6.

Hab. Northern and Eastern United States, southward to Florida.

One, Bloxworth, near Blandford, Dorsetshire, Dec. 1836: Rev. O. P. Cambridge, *Zool.*, 1859, p. 6444.

Obs. Possibly a skin received from the bird-stuffer to whom a specimen of *D. minor* had been

entrusted for preservation, although the owner believes that the bird in his possession is the one he shot when a boy.

GOLDEN-WINGED WOODPECKER. *Colaptes auratus* (Linnaeus). Length, 11·5 in.; bill, 1·75 in.; wing, 6·6 in.; tarsus, 1·2 in.

Hab. Eastern United States, westward to the great Plains, northward to Hudson's Bay and Alaska.

One, Amesbury Park, Wilts, autumn 1836: Marsh, *Zool.*, 1859, p. 6327.

Obs. Mr. Marsh writes: "My brother, now Member for Salisbury, saw this bird in the flesh before it was preserved; it was brought to him just after it was shot. It was preserved by Mr. Edwards of Amesbury, and has never been out of my possession." A most extraordinary occurrence. In my opinion not one of the three American woodpeckers here noticed has the slightest claim to recognition amongst British birds. If the reported specimens were not "set up" from foreign skins, as is likely, they must have been imported and contrived to escape.

Fam. CUCULIDÆ.

GREAT SPOTTED CUCKOO. *Coccyzus glandarius* (Linnaeus). Length, 16 in.; bill, 1·25 in.; wing, 8·5 in.; tarsus, 1·3 in.

Hab. Southern and Central Europe, as far east as Persia; wintering in Africa.

One, Omev Island, co. Galway, March 1842: Ball, *Ann. Nat. Hist.*, 1843; Thompson, "Nat. Hist. Ireland

(Birds)," vol. i. p. 364. In the Museum of Trinity College, Dublin.

One near Bellingham, North Tyne, Aug. 5, 1870: Charlton, *Field*, Sept. 3, 1870. Identified by Proctor of Durham, who preserved it for Mr. Charlton; now in the Museum at Newcastle-on-Tyne.

One near Caister, Yarmouth, Oct. 18, 1896, after a gale from the N.E.: Gurney, *Zool.*, 1897, p. 135.

Obs. This rare wanderer from the south, so completely out of its latitude in the British Islands, is not only a much larger bird than our Cuckoo, as may be seen by a comparison of the measurements, but also differs from it conspicuously in having spotted wings and an ample crest, a peculiarity which has led to its generic separation from *Cuculus*. Like our bird, however, it is parasitic in its habits, usually invading the nests of Magpies, and therein depositing its eggs, which resemble theirs in size and markings. In a former edition of Yarrell's "British Birds" another specimen of the great Spotted Cuckoo is mentioned as having been obtained at Lawrenny, Pembrokeshire, and recorded, *Zool.*, 1851, p. 3046; but on turning to the volume and page indicated, it appears that the communication has reference to an example of the Yellow-billed Cuckoo, *q.v.*

YELLOW-BILLED CUCKOO. *Coccyzus americanus* (Linnaeus). Length, 11 in.; bill, 1 in.; wing, 5.5 in.; tarsus, 1 in.

Hab. Eastern United States, through Central America and the West Indies to Buenos Ayres.

One, Youghal, co. Cork, autumn 1825: Ball, Rennie's *Field Nat. Mag.*, vol. i. p. 6, fig.; Thompson, "Nat.



1. Herring Gull. 2. Lesser Blackbacked Gull, foot. 3. 4. Common Gull, ad. juv. 5. 6. Kittiwake, ad. juv. & foot.
7. 8. Blackheaded Gull, summer & winter.

Hist. Irel. (Birds)," vol. i. p. 365; Harvey, "Fauna of Cork," p. 10. To Ball's account is added a description by Blyth (p. 7). The specimen is in the Museum of Trinity College, Dublin.

One near Bray, co. Wicklow, Oct. 1832: Ball, *l.c.*; Thompson, *l.c.*

One, Cornwall: Jenyns, "Man. Brit. Vert.," 1835, p. 155.

One, Stackpole Court, Lawrenny, Pembrokeshire, autumn 1832: Tracy, *Zool.*, 1851, p. 3046; Yarrell, *op. cit.*

One near Aberystwith, Oct. 26, 1870: Cousens, *Field*, Nov. 5, 1870; picked up dead, not in a wood (Dresser, *Proc. Zool. Soc.*, 1871, p. 299), but on the Cribyn beach, a mile and a half north of Aberystwith. In the possession of Capt. G. W. Cousens of Llanbadarn; *Zool.*, 1895, p. 143.

One, Lundy Island, Oct. 1874; Saunders's "Manual," p. 290.

One, near Helston, Cornwall, picked up dead, Oct. 14, 1887: Tregelles, *Trans. Penzance Nat. Hist. Soc.*, vol. ii. p. 383.

One, Bridport, Dorsetshire, picked up dead, Oct. 5, 1895: Harting, *Zool.*, 1895, p. 376. In the possession of Mr. T. A. Colfox, of Westmead, Bridport; *Field*, Oct. 26, 1895.

One, Ventnor, Isle of Wight, Oct. 1896, picked up dead after a storm and strong westerly wind: G. W. Smith, *Zool.*, 1896, p. 473; 1897, p. 142.

Obs. This species bears a general resemblance to the American Black-billed Cuckoo, next to be mentioned, but may be distinguished by the yellow colour of the lower mandible, the rufous wing-feathers, and the black tail-feathers tipped with white. Unlike our English Cuckoo, neither of these two American species is of parasitic habit.

BLACK-BILLED CUCKOO. *Coccyzus erythrophthalmus* (Wilson). Length, 11·25 in.; bill, 0·9 in.; wing, 5·3 in.; tarsus, 0·9 in.

Hab. United States, throughout Central America to Upper Amazon; Cuba and Trinidad.

One, Killead, co. Antrim, Sept. 25, 1871: Lord Clermont, *Zool.*, 1872, p. 3022. Recorded as *C. americanus*, Blake Knox, *tom. cit.*, p. 2943. I examined this specimen on the 28th May 1872, when it was exhibited at a meeting of the Zoological Society; *Proc. Zool. Soc.*, 1872, p. 661.

Obs. As compared with the European Cuckoo, both this species and the last-named are not only smaller in size and slighter in build, but present a plainer appearance, having no colour on the breast, which is dull white, and wanting the barred flanks which are so conspicuous in our more familiar bird.

The present species differs from *C. americanus* not merely in the colour of the bill, which has suggested the distinctive appellation, but in the almost entire absence of black in the tail and rufous colour in the quill feathers, which have their inner webs only basally tinged with buff. Unlike the European Cuckoo, both of these species build a nest, which is described as "a platform of small sticks, with a few grasses or catkins, generally in low trees or vine-covered bushes a few feet from the ground." The eggs, three to five in number, are of a pale greenish-blue.

Fam. *ALCEDINIDÆ*.

BELTED KINGFISHER. *Ceryle alcyon* (Linnaeus).

Length, 12 in.; bill, 2 in.; wing, 6·4 in.; tarsus, 0·3 in.

Hab. North America generally; wintering throughout Central America and the Antilles.

One, Annsbrook, co. Meath, Oct. 26, 1845: Thompson, *Ann. Nat. Hist.*, 1845, and "Nat. Hist., Ireland (Birds)," vol. i. p. 373. In the Museum of Trinity College, Dublin.

One, Luggelaw, co. Wicklow, Nov. 1845: Thompson, *op. cit.*, Ussher, "Birds of Ireland," p. 400. In the Warren Collection in Science and Art Museum, Dublin.

Obs. Although the American Belted Kingfisher is to a certain extent migratory in its habits, going southward for the winter, and returning northward in spring, it seems highly improbable that this species could have been met with in the localities above named, except through the agency of man, and no other instance of its appearance in Europe has been reported. I visited Luggelaw from curiosity when in Ireland, and a more uncongenial place for a Kingfisher of any kind I never saw. It is not surprising, therefore, to find that Mr. Ussher, in his recently published volume on the Birds of Ireland, has relegated the Belted Kingfisher to an "Appendix," and placed it amongst "species whose claims to be included in the list of Irish birds are at present considered to be insufficient."

ORDER IV. COLUMBÆ

Fam. COLUMBIDÆ.

PASSENGER PIGEON. *Columba migratoria*, Linnæus.

Length, 17 in.; bill, 0·75 in.; wing, 8 in.; tarsus, 1 in.

Hab. North America to High Central Plains.

One, Monymenal, Fifeshire, Dec. 31, 1825: Fleming, "Hist. Brit. An.," p. 145.

One between Crishall and Royston, July 1844: Yarrell, "Hist. Brit. Birds," 3rd ed. vol. ii. p. 317; Christy, "Birds of Essex," p. 215.

One seen near Tring, Hertfordshire: Yarrell, *op. cit.*

One near Mellerstain, Berwickshire, shot by Lord Haddington: Turnbull, "Birds of East Lothian," p. 41. A gentleman in Berwickshire, however, had turned out several Passenger Pigeons shortly before the Mellerstain specimen was shot (Turnbull, *l.c.*).

One near Tralee, Ireland, 1848: Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 443.

One near Melbourne, Derbyshire: Briggs, *Field*, September 10, 1869.

One, a young bird, now in the Saffron Walden Museum, shot by the late Mr. John Norman of Known's Folly Farm, part of which is in Cambridgeshire and part in Essex: Christy, "Birds of Essex," p. 215.

One shot by Lord Harry Phipps, at Mulgrave, near Whitby, Yorkshire, Oct. 12, 1876. In the collection of Earl Ravensworth: Hancock, *Trans. Nat. Hist. Northumb.*, vol. v. (1877), p. 337; *Zool.*, 1877, p. 180.

Obs. Mr. Saunders remarks in his "Manual" (p. 487) that it may be reasonably doubted whether any of these birds had crossed the Atlantic in a wild state. From most parts of North America

this species has now been extirpated, and it is very likely to become extinct unless the laws for its preservation can be effectually enforced.

ORDER V. PTEROCLIDES

Fam. PTEROCLIDÆ.

PALLAS'S SAND-GROUSE. *Syrrhaptes paradoxus*
(Pallas). Length, 15 in.; wing, 10 in.; weight, 10½ oz.

Hab. Astracan, Turkestan, and particularly the Kirghis Steppes.

First included in the British list by Mr. T. J. Moore (*Zool.*, 1859, p. 6728, and *Ibis*, 1860, p. 105) from a specimen obtained at Tremadoc, North Wales, July 9, 1859. It was in company with two others which escaped. A specimen in the Lynn Museum was also procured in July 1859 at Walpole, St. Peter's, Norfolk (Rev. F. L. Currie, *Ibis*, 1859, p. 472; Stevenson, "Birds of Norfolk," vol. i. p. 337). In 1863 an extraordinary flight of these birds visited Great Britain, and numerous examples were shot and duly chronicled. A very complete summary of these by Prof. Newton will be found in the *Ibis*, 1864, p. 185; and as regards the counties of Norfolk and Suffolk, where as many as seventy-five were killed, the reader may be referred to an excellent chapter on the subject in Stevenson's "Birds of Norfolk," vol. i. pp. 376-404. In Yorkshire, according to Mr. W. E. Clarke, about eighty were seen in that year (1863), of which twenty-four

were killed. Two smaller and less known visitations were noticed in 1872 and 1876, as chronicled by Prof. Newton, Report Brit. Assoc. (Bath), 1888, p. 703, and "Dictionary of Birds." In Scotland three or four were seen at Girvan, in Ayrshire, in June 1872 (Gray, *Ibis*, 1872, p. 335), and seven were received by W. Hastings of Dumfries during the summer of 1888, when hundreds of these birds appeared in Scotland (*Trans. Dumfr. Nat. Hist. Soc.*, 1890, p. 128).

Another remarkable immigration of 2000 or more occurred in 1888, and great numbers were shot. Some were still at Harlech in August 1891, and three were seen at Thetford in February 1892 (*cf.* King, *Field*, February 20, 1892).

In the summer of 1889 a pair nested in Moray, as recorded by Prof. Newton, who described and figured a nestling (*Ibis*, 1890, p. 207).

In Ireland specimens have been obtained at Ross (Lord Clermont, *Zool.*, 1863, p. 8934), at Drumbeg (Sinclair, *Field*, June 20 and 27, 1863), at Naran (Cox, *Field*, July 18, 1863), at Kilcock, co. Kildare (Coates, *Field*, October 21, 1876, and Williams, *Zool.*, 1877, p. 24). In 1888 several were shot in the counties of Down, Dublin, Westmeath, King's Co., Wexford, Cork, Clare, and Connaught. For further information on its occurrence in Ireland see Ussher, "Birds of Ireland," pp. 227-229.

In December 1888 an Act of Parliament was passed "for the better protection of the Sand-Grouse in the United Kingdom" (51 and 52 Vict. c. 55),

but the commencement of its operation was delayed until February 1, 1889, and the proposed protection came too late.

The following bibliography, although by no means exhaustive, may be of service to readers who may desire to pursue the subject in greater detail than is here possible :—

- Moore, On the first appearance of the Sand-Grouse in the British Islands in July 1859: *Ibis*, 1860, pp. 105–110, with coloured plate by Wolf.
- Newton, On the irruption of Pallas's Sand-Grouse in 1863, with a sketch map, pl. vi.: *Ibis*, 1864, pp. 185–222; egg figured, *Proc. Zool. Soc.*, 1861, p. 203, pl.
- Newton, On the irruption of Pallas's Sand-Grouse in 1888: Brit. Assoc. Reports (Bath), Sept. 1888; *Zool.*, 1888, p. 385; Breeding in East Riding of Yorkshire, *Zool., &c.*
- Newton, On the breeding of the Sand-Grouse in Scotland: *Field*, June 13, 1888; the young described and figured, *Ibis*, 1890, p. 207, pl. vii.
- Stevenson, "Birds of Norfolk," vol. i. pp. 376–404, with coloured plate by Wolf.
- Southwell, On the occurrence of the Sand-Grouse in Norfolk: *Zool.*, 1888, pp. 442–456.
- Cordeaux, Summary of occurrences in Lincolnshire: *Zool.*, 1888, pp. 419–423.
- Fitch, ditto in Essex: *Essex Naturalist*, 1888, pp. 61, 136, 271; breeding in Essex, *op. cit.*, 1888, p. 66.
- Hancock, ditto in Northumberland and Durham: *Trans. Tyneside Nat. Field Club*, 1863–64, vol. vi. p. 100.
- Harting, On the recent immigration of Pallas's Sand-Grouse: *Life Lore*, August 1888, with figure; Collected observations on the occurrence of the Sand-Grouse in England: *Zool.*, 1888, p. 261; Alleged breeding in Cumberland, pp. 348, 388.
- Scharff, The Sand-Grouse in Ireland: *Zool.*, 1888, p. 347.

- Macpherson, The Sand-Grouse in North-West of England : *Trans. Cumberl. and Westmorl. Assoc. Lit. and Sci.*, 1888, pp. 59-75; the visitation of Pallas's Sand-Grouse to Scotland in 1888; 8vo pamphlet, 1889, pp. 38, with map.
- Evans, W., On the Sand-Grouse in Scotland: *Proc. Roy. Phys. Soc. Edinb.*, 1888, pp. 106-126.
- Tegetmeier, Pallas's Sand-Grouse: 8vo pamphlet, pp. 23, 1888; reviewed in *Zool.*, 1888, p. 358.
- Cornish, Observations on the Sand-Grouse in captivity. Drinking like a pigeon. *Trans. Penzance Nat. Hist. Soc.*, 1889, p. 91.
- Meade Waldo, On the breeding of the Sand-Grouse in captivity: *Zool.*, 1896, p. 298.
- Bureau, On the appearance of the Sand-Grouse in the East of France: *Bull. Soc. Zool. France*, 1888, pp. 245-252.
- Winge, On the breeding of the Sand-Grouse in captivity in Denmark (translation): *Zool.*, 1892, p. 341.
- Cocks, On the occurrence of the Sand-Grouse in Norway: *Zool.*, 1888, p. 425.
- Reichenow on its appearance in Germany in 1888: *Journal für Ornithologie*, January 1889. Very incomplete.
- Cordeaux on its occurrence in Heligoland: *Zool.*, 1888, p. 267.
- Cecil Smith, as to Guernsey and Jersey, *tom. cit.*, p. 266.

ORDER VI. GALLINÆ

Fam. PHASIANIDÆ.

BARBARY PARTRIDGE. *Caccabis petrosa* (Gmelin).

The claims of this species to be regarded as a British bird have been already discussed (p. 151).

VIRGINIAN QUAIL. *Ortyx virginianus* (Linnæus).

This being an introduced species, has been dealt with in Part I. of the present volume (p. 151).

Fam. TURNICIDÆ.

ANDALUSIAN HEMIPODE. *Turnix sylvatica* (Desfontaine).

There being no evidence to show that this bird has ever occurred in the British Islands, except under very doubtful circumstances, the records relating to its appearance have been dealt with in the former part of this volume (p. 155).

ORDER VII. ALECTORIDES

Fam. OTIDIDÆ.

MACQUEEN'S BUSTARD. *Otis macqueeni*, Gray.
Pl. 24, figs. 8, 8a. Length, 28 in.; bill, 1·8 in.; wing, 15·5 in.; tarsus, 4·9 in.

Hab. Resident in the Aralo-Caspian region, eastward as far as Lake Balkash and the Altai Mountains; crosses the Pamir in September to winter in North-West India until March. Common in Sind, Afghanistan, Baluchistan, and Persia.

One, Kirton Lindsey, Lincolnshire, Oct. 7, 1847: Roberts, *Zool.*, 1848, pp. 1969, 2065; Newman, *tom. cit.*, p. 2146; Gould, *Proc. Yorks. Phil. Soc.*, 1855, pp. 94-98. In Museum of the Yorkshire Philosophical Society at York. A coloured plate from a drawing of this specimen by Miss Barker was published in the *Naturalist*, 1852, p. 89.

One near Marske, North-East Yorkshire, Oct. 5, 1892: *Nat.*, 1892, p. 373; *Zool.*, 1893, p. 21. Purchased for the Newcastle Museum.

One, a young male, Easington, in Holderness, Oct. 17, 1896: Cordeaux, *Zool.*, 1896, p. 433; Harting, *Proc. Linn. Soc.*, 1896-97, p. 2.

One, Pitfour, Aberdeen, Oct. 24, 1898: Eagle Clarke, *Ann. Scot. Nat. Hist.*, 1899, p. 73.

Obs. These are by no means the only instances of the occurrence of this species in Europe. Five were met with in North Germany between 1800 and 1847; others at Utrecht (in Dec. 1850, preserved in the Leiden Museum), and at Zeist, in Holland; at Dieghem, near Brussels; on the island of Oeland; one from a flock of six in Schleswig; one in Poland; one in Silesia; one near Helsingfors, in Finland; and one in Livonia in Sept. 1880.

ORDER VIII. LIMICOLÆ

Fam. CHARADRIIDÆ.

CREAM-COLOURED COURSER. *Cursorius gallicus*, Gmelin. Pl. 24, figs. 9, 9a. Length, 10 in.; bill, 1 in.; wing, 6.25 in.; tarsus, 2.25 in.

Hab. North Africa, Arabia, Persia, and North-West India.

One near Wingham, Kent: Latham, "Gen. Syn.," Suppl. p. 254, pl. 116 (1787); Montagu, "Orn. Dict.;" Fox, *Zool. Journ.*, vol. iii. p. 493; and *Nat.*, 1837, p. 133. In the British Museum.

One, North Wales, 1793: Fleming, "Hist. Brit. An.," p. 112; Montagu, "Suppl. Orn. Dict."

One near Weatherby, Yorkshire, April 1816: Atkinson, "Compend. Brit. Orn.," p. 165.

One, Yorkshire, 1825: Gould (*vide* Lord Harewood), "Birds of Great Britain;" Clarke, "Handb. Yorks. Vert.," p. 70.

- One, Charnwood Forest, Leicestershire, Oct. 15, 1827 : Fox, *Zool. Journ.*, vol. iii. p. 492, figured by Selby, Bewick, and Potter, "Hist. Charnwood Forest," 1842, where it is referred to as "killed near Timberwood Hill, Oct. 1827. In the collection of the Rev. Thomas Gisborne, of Yoxall Lodge, and lent by him to Selby, for whose splendid work it was engraved."
- One, Friston, near Aldeburgh, Suffolk, Oct. 3, 1828 : Acton, *Mag. Nat. Hist.*, vol. iv. p. 163. In the collection of the late Mr. Hoy at Boyle's Court, Essex. In Jesse's "Gleanings" (3rd series, p. 98) is a list of Suffolk birds, communicated by the Rev. J. Mitford, of Benhall, Suffolk. Amongst others is the "Cream-Coloured Plover, *Charadrius gallicus*; Snape, near Aldeburgh. This specimen was shot by an old shepherd on a piece of waste ground near the village of Snape, and it appeared to be perfectly tame and fearless of man."
- One, Holme, near Market Weighton, East Riding, in 1828 : Clarke and Roebuck, "Handbook Yorks. Vertebr.," p. 70.
- One, Cheswick, Northumberland, Nov. 9, 1846 : *Proc. Berwicks. Nat.*, 1847, p. 200. In the collection of the late Mr. Brodrick.
- One seen near Blakeney, Norfolk, autumn 1847 : Stevenson, "Birds of Norfolk," vol. ii. p. 49.
- One, Westbrook, near Margate, Nov. 1849. In Margate Museum ; sold in 1868.
- One seen, Westacre, Norfolk, autumn 1855 : Stevenson, *op.cit.*
- One, East Down, near Tilshead, Salisbury Plain, Oct. 2, 1855 : Gardner, *Zool.*, 1855, p. 4913 ; A. C. Smith, "Birds of Wilts," p. 374.
- Two seen, one shot, Braunton Burrows, North Devon, Oct. 1856 : Mathew, *Nat.*, 1856, p. 286 ; *Zool.*, 1857, p. 5346. In possession of Rev. J. W. Landon, of Braunton.
- One, Hackney Marshes, Middlesex, Oct. 19, 1858 : Newman, *Zool.*, 1858, p. 6309 ; Harting, "Birds of Middlesex," p. 142 ; *Antiquarian Chronicle* for June 1882, p. 8. In possession of Mr. Beresford, of Hackney.

Two seen, Braunton Burrows, North Devon, March 1860 :
Mathew, *Zool.*, 1860, p. 6980.

One, Somerset : Rowe, "List of Birds of Devon," p. 32.

One, Allonby, near Maryport, Cumberland, Oct. 1864 : Allis,
Zool., 1865, p. 9418. "Fauna of Lakeland," p. 348.

One near Sandwich, Kent, Oct. 1866 : Harding, *Zool.*, 1866,
p. 523. In the Margate Museum ; sold in 1868.

One, Cleghorn, near Lanark, Oct. 8, 1868 : Walker, *Zool.*,
1868, p. 1459 ; Harvie-Brown, *tom. cit.*, p. 1482 ; Gray,
"Birds of West of Scotland," p. 250.

One, Christchurch, Hants : Gurney, *Zool.*, 1869, p. 1512.

One near Low Lynn, Northumberland, Nov. 1870 : Gurney,
Zool., 1871, pp. 2522, 2562. In Berwick Museum.

One, Mawgan, near St. Columb, Cornwall, Dec. 1884 : Cor-
nish, *Zool.*, 1885, p. 113.

One, Ynyslas, near Borth, Cardiganshire, on the estuary of
the Dovey, Oct. 2, 1886 : Horton, *Field*, Oct. 6, 1886 ;
Zool., 1887, p. 269.

One, Earlstoke Down, Wiltshire, on the N.W. edge of
Salisbury Plain, Oct. 10, 1896 : A. C. Smith, *Zool.*, 1896,
p. 434. I examined this bird in the flesh and found
the weight to be $4\frac{1}{2}$ oz.

One, Bouley Bay, Jersey, Oct. 19, 1896 : Harting, *Zool.*,
1896, p. 435.

COLLARED PRATINCOLE. *Glareola pratincola* (Lin-
næus). Length, 10·5 in. ; bill, 0·8 in. ; wing, 7·5 in. ;
tarsus, 1·25 in.

Hab. Southern Europe ; North Africa ; eastwards to
Turkestan and India.

One, Boldness, Cumberland, 1807 : Graves, "Brit. Orn.,"
1812, vol. ii., not paged. Recorded also as obtained
near Ormskirk, Lancashire, 1807 : Bullock, *Trans.*
Linn. Soc., 1815, vol. xi. p. 177 ; Graves, *op. cit.*
According to Montagu, Bullock obtained this bird on
May 18, 1804 ; Graves, who figured it, gives the date

Oct. 1809; while Bullock himself, who ought to know best, states that it was killed in 1807.

One near Truro, Cornwall, Sept. 1811: Graves, *op. cit.*

One, Eude Waters, Surrey, prior to 1812: Graves, *op. cit.*

One, Unst, Shetland, Aug. 16, 1812: Bullock, *l.c.*

Two, Breydon, Yarmouth, May 1827: Paget, "Sketch Nat. Hist. Yarmouth," p. 10.

One, Branston Hall, near Lincoln, Aug. 15, 1827: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 473.

One, Wilbraham Fen, Cambridge, May 1835: Yarrell, *op. cit.*, *vide* Rev. L. Jenyns.

One, Castle Freke, co. Cork: Harvey, "Fauna of Cork," p. 11; Ussher, "Birds of Ireland," p. 249.

One, Blakeney, Norfolk, May 1840: Yarrell, *op. cit.*

One, Staxton Wold, Scarborough, May 1844: Sir W. Milner, *Zool.*, 1848, p. 2023.

One, Bridlington, Yorkshire, Feb. 1850: Duff, *Zool.*, 1850, p. 2771; Hancock, "Birds of Northumb.," p. 96, note. In the collection of Mr. J. H. Gurney.

Two on the Warren, Exmouth, Sept. 7, 1851: Hon. T. Powys, *Zool.*, 1852, p. 3710; Rowe, "List Birds Devon," p. 32; D'Urban and Mathew, "Birds of Devon," p. 296.

One, Tilshead, Salisbury Plain, Nov. 1852: A. C. Smith, *Zool.*, 1853, p. 3843; "Birds of Wilts.," p. 371. I saw this bird in Mr. A. C. Smith's collection at Old Park, Devizes, Sept. 4, 1896.

One, Kelvedon Marshes, Essex, July 1861. Shot by Hon. G. Hill, preserved by Shaw, of Shrewsbury: *Field*, Aug. 31, 1861; in the collection of Viscount Hill.

One, Stokes Bay, near Gosport, Oct. 1864: Feilden, *Zool.*, 1872, p. 2945.

One, Feltwell, Norfolk, June 1868: Stevenson, *Zool.*, 1869, p. 1492.

One near Whitby, Oct. 19, 1871: Simpson, *Zool.*, 1871, p. 2870; Clarke, "Handbook Yorks. Vert.," p. 70.

One, Rocksands, Montrose, Nov. 4, 1899: Harvie-Brown, *Ann. Scot. Nat. Hist.*, 1900, p. 51.

EASTERN GOLDEN PLOVER. *Charadrius fulvus*, Gmelin. Length, 9·5 in.; bill, 0·9 in.; wing, 6·5 in.; tarsus, 1·5 in.

Hab. The tundras from the Yenesei to Bering Sea up to 74° N., and as far south as the plains of Mongolia; wintering in China, Japan, India, Australia, and New Zealand.

One, Norfolk, Dec. 1874: Dresser, *Ibis*, 1875, p. 513; Stevenson, *Trans. Norf. Nat. Soc.* (1876), ii. p. 213.

One, Loch of Stenness, Orkney, Nov. 26, 1887: Millais, *Field*, Dec. 10, 1887.

Obs. The colour of the axillary plume in the Plovers has generally been relied upon as a good distinguishing character, being white in *C. pluvialis*, grey in *C. fulvus* (*longipes* vel *orientalis*) and *C. dominicus* (vel *virginicus*), and black in *S. helvetica*.

C. fulvus and *C. dominicus* are doubtfully distinct, both having grey axillaries, and the measurements in a large series show very little variation (*Proc. Zool. Soc.*, 1871, p. 116). Mr. Cordeaux has observed that in *C. pluvialis* the axillary plume is not invariably pure white, but is occasionally edged or broken with smoke-grey (*Zool.*, 1869, p. 1544).

AMERICAN GOLDEN PLOVER. *Charadrius dominicus*, Müller. Length, 10 in.; bill, 1 in.; wing, 7 in.; tarsus, 1·6 in.

Hab. The barren grounds from Alaska to Davis Straits, Greenland, Canada, the United States, and West Indies.

One, Leadenhall Market, autumn 1882: Gurney.

One, Perthshire, Aug. 3, 1888: Millais, *Zool.*, 1886, p. 26.

One amongst Golden Plovers, Belmullet, co. Mayo, Sept. 1894: Williams, *Zool.*, 1894, p. 428.

Obs. This Plover, which, as noted by Herr Gätke, has occurred in Heligoland, is distinguished by Mr. Saunders as the Lesser Golden Plover, a name which is also applicable to the Asiatic form, from which it is hardly to be distinguished. It is characterised, he says, by its larger average size, relatively shorter inner secondaries, and less brilliant yellow tint; but these points may well be dependent upon age and season. It is not possible to indicate any precise character by which the Asiatic and American Golden Plovers may be distinguished at a glance, and I am disposed to agree with Dr. Sharpe in regarding them as specifically identical under the name *Charadrius dominicus*, that being the earliest name to which a recognisable description is attached, bestowed by S. P. Müller in 1776 on a specimen received from San Domingo.

SOCIABLE PLOVER. *Chætusia gregaria* (Pallas).

Length, 12 in.; bill, 1·3 in.; wing, 8 in.; tarsus, 2·35 in.

Hab. Southern Russia and Turkestan, wandering to India, Ceylon, Arabia, Egypt, and Abyssinia in winter.

One, St. Michael's-in-Wyre, Lancashire, autumn 1860: Originally recorded as a Cream-coloured Courser by F. S. Mitchell, "Birds of Lancashire," 1885, p. 175, but afterwards rightly named (*Zool.*, 1888, p. 389), and the mistake corrected in the second edition of this book (1892, p. 212), edited by Mr. Saunders. See *Zool.*, 1893, p. 117. The stuffed specimen was exhibited by

the late Mr. Seebohm at a meeting of the Zoological Society, Nov. 20, 1888, but whether it was really obtained in Lancashire forty years ago, and not mounted from a foreign skin, appears to be doubtful.

Obs. This Eastern Plover possesses a hind-toe like the Grey Plover and Lapwing, and on this account has been placed by some in the genus *Vanellus*. It has, however, no crest, nor is the dorsal plumage iridescent, as in the Lapwing. The colour of the mantle is drab, as in *Ægialitis*, the under parts as in *Eudromias*, that is, the breast ashy-grey, merging into black on the belly, and chestnut on the flanks and vent. Its affinities seem to be rather with the Crowned Plovers of Africa and India, of which several species are known, and which have been conveniently grouped under the name *Chætusia* of Bonaparte.

CASPIAN DOTTEREL. *Eudromias asiaticus* (Pallas).

Length, 7·5 in. ; bill, 0·8 in. ; wing, 5·5 in. ; bare part of tibia, 0·7 in. ; tarsus, 1·5 in.

Hab. China, Turkey, and the shores of the Caspian, Russia, Red Sea shore, Abyssinia, and South Africa.

One, North Denes, Yarmouth, Norfolk, May 22, 1890 : Southwell, *Proc. Zool. Soc.*, 1890, p. 461, and *Zool.*, 1890, p. 311 ; Stevenson and Southwell, "Birds of Norfolk," p. 382, and *Trans. Norf. Nat. Soc.*, v. p. 203 (1891). In the Norwich Museum.

Obs. In appearance this Plover, which in breeding plumage has a rufous pectoral band, seems to hold an intermediate position between the Dotterels (*Eudromias*) and the Crowned Plovers (*Chætusia*),



1 ($\frac{1}{2}$)



2.



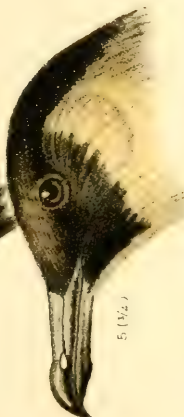
3.



4 ($\frac{1}{2}$)



5 ($\frac{1}{2}$)



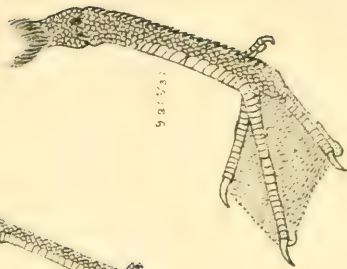
6 ($\frac{1}{2}$)



7 ($\frac{1}{2}$)



8 a



9 a: $\frac{1}{2}$

1. Fulmar. 2. 2a. Storm Petrel. 3. Fork-tailed Petrel. 4. Manx Shearwater. 5. Pomatorhine Skua. 6. 7. Arctic Skua.
8. Buffon's Skua. 9. 9a. Great Skua

resembling the former in the coloration of the pectoral region, and the latter in its longer and more slender bill and tarsi.

In the *Ibis* for April 1870 (pp. 202-209) I have given a somewhat detailed account of the species, accompanied by a coloured figure.

LITTLE RINGED PLOVER. *Ægialitis curonica* (Gmelin). Pl. 19, figs. 9, 9a. Length, 6·5 in.; bill, 0·5 in.; wing, 4·5 in.; tarsus, 0·9 in.

Hab. Europe; Asia; North Africa.

One, Shoreham, Sussex (Doubleday): Strickland, *Mag. Nat. Hist.*, vol. viii. p. 508; figured by Gould in his "Birds of Europe."

Two, Norwich Museum, said to have been killed in Norfolk (Lubbock, "Fauna of Norfolk," p. 73). One only exists at present, its history doubtful: Stevenson, "Birds of Norfolk," vol. ii. p. 97.

One, Whixley, Yorkshire, July 30, 1850: Garth, *Zool.*, 1850, p. 2953; Clarke, "Handb. Yorks. Vert.," p. 71.

One, Shoreham, Sussex, Sept. 1851: Ellman, *Zool.*, 1851, p. 3279; Borrer, "Birds of Sussex," p. 207.

Three on the shingle in the bed of the river Calder, by Horbury Mills, Wakefield, 1851: Talbot, "Birds of Wakefield," p. 25.

One near Brighton: Cavafy, *Nat.*, 1854, p. 234.

Several between Cuckmere Haven and Seaford, Sussex, Feb. 1855: Grantham, *Zool.*, 1855, p. 4762.

One out of a flock near Barnstaple, Sept. 1859: Mathew, *Zool.*, 1859, p. 6762.

One, Christchurch, Hants, "many years ago:" Wise, "New Forest" (1862), p. 315.

One, Spurn Point, Yorkshire, Oct. 5, 1861: Boulton, *Field*, Nov. 16, 1861.

One, Scilly, Oct. 1863: Rodd, *Zool.*, 1863, p. 8848.

One, Kingsbury Reservoir, Middlesex, Aug. 30, 1864: Harting, *Zool.*, 1864, p. 9283; a second obtained there the same month by Mr. R. Mitford: "Birds of Middlesex," p. 149. In the British Museum.

Two, West Wittering, and Bishopstone, Aug. 1865; Borrer, "Birds of Sussex," p. 206.

Three out of a flock between Lewes and Newhaven, March 17, 1866: Monk, *Zool.*, 1866, p. 229.

Obs. The Little Ringed Plover has been described by many authors, and has received a variety of names. It is the *Charadrius curonicus* of Gmelin, "Syst. Nat.," i. p. 692 (1788), and Beseke, *fide* Gmelin, "Vög. Kurlands," p. 66 (1792); *C. philippinus*, Latham, "Ind. Orn.," ii. p. 745 (1790); *C. fluviatilis*, Bechstein, "Naturg. Vög. Deutschl.," p. 422 (1809); *C. minor*, Meyer and Wolf, "Taschenb. Vög. Deutschl.," ii. p. 324 (1810). For many years it stood as *Charadrius minor* in works on British birds, including the earlier editions of Yarrell, but the older name bestowed by Gmelin in 1788 is that now generally adopted. It is highly probable that many of the specimens referred to in the above-mentioned records as the Little Ringed Plover may have been merely examples of the small Continental race of Ringed Plover (*Æ. hiaticula*) which occasionally visits this country, and which has been specifically separated under the name *intermedius*. Without direct examination of the specimens referred to, many of which are now inaccessible, it is impossible after such lapse of time to say whether the species was or was not correctly determined.

KILLDEER PLOVER. *Ægialitis vocifera* (Linnæus).

Length, 9·5 in.; bill, 0·9 in.; wing, 6·5 in.; tarsus, 1·4 in.

Hab. United States, Mexico, West Indies, and tropical America to Colombia.

One, Knapp Mills, Christchurch, Hants, April 1859; Selater, *Ibis*, 1862, p. 275; Hart, *Zool.*, 1890, p. 272; Wise, "New Forest," 1867, p. 318, figure.

One, Tresco, Scilly Isles: Shot by Mr. Jenkinson, and set up by Vingoe of Penzance, Jan. 15, 1885; Cornish, *Zool.*, 1885, p. 113. In the collection at Tresco Abbey. Rodd's "Birds of Cornwall" appeared in 1880, before this specimen had been obtained.

Fam. SCOLOPACIDÆ.

BLACK-WINGED STILT. *Himantopus candidus*, Bonaterre. Length, 13 in.; bill, 2·5 in.; wing, 9·5 in.; tarsus, 4·7 in.

Hab. Southern and South-Eastern Europe, India, Ceylon, Western China, and Africa.

Two near Dumfries in 1684: Sir R. Sibbald, "Hist. Scot.," lib. iii. p. 18; Pennant, "Caledonian Zoology," p. 35.

Five killed at one shot near Penzance, circ. 1720: Rodd's "Birds of Cornwall," introd. p. xxx.

One, Braunton, North Devon, circ. 1726 (*vide* Walter Moyle): Rodd's "Birds of Cornwall," introd. p. xxx.

Six, Frensham Pond, Hants, April 1779: Gilbert White, "Nat. Hist. Selborne." One of these was shot and came into the possession of White's brother; see Pennant's "Brit. Zool.," vol. ii. p. 101.

One, Mountains of Clova, and one, Ben Lawers, Perthshire, August 1793: Don, "Fauna of Forfarshire" (1812).

One, Anglesea, 1793: Montagu, "Orn., Dict.," Suppl., 1813.

- One, Stanton Harcourt Common, near Oxford; Pennant, "Brit. Zool.," vol. ii. p. 101.
- Two, Lopness, Orkney, 1814: Baikie and Heddle, "Hist. Nat. Orcadensis," p. 64.
- A pair, Hickling, Norfolk, 1822: Paget, "Sketch Nat. Hist. Yarmouth," p. 10.
- One, Northwold Fen, Norfolk, June 1822: Stevenson, "Birds of Norfolk," vol. ii. p. 244.
- One, Breydon Harbour, Yarmouth, May 1823: Stevenson.
- One seen near Youghal, co. Cork, winter 1823: Thompson, "Nat. Hist. Irel. (Birds)," vol. ii. p. 221.
- One near Ashburton, Devon, 1823 (*vide* Dr. Andrew Tucker): D'Urban and Mathew, "Birds of Devon," p. 313.
- One, Lincolnshire, July 1824: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 677. Not noted by Cordeaux.
- One, Devonshire, and another Slapton Ley, near Dartmouth: Moore, *Trans. Plymouth Inst.*, 1830, p. 331, and *Mag. Nat. Hist.*, 1837, p. 322.
- One, Poole, Dorsetshire: Pulteney's List, p. 16: Mansel-Pleydell, "Birds of Dorset," p. 85.
- One on the River Bure, Yarmouth, 1824: Paget, *op. cit.*
- A pair, Stoke Ferry, Norfolk, spring 1826: Yarrell, *op. cit.*
- One, Frensham Pond, Hants, Dec. 1832: Holme, *Zool.*, 1856, p. 5041.
- One near Lough Mask, co. Mayo, Jan. 1836: Thompson, *op. cit.*; Ussher, "Birds of Ireland," p. 266. In Montgomery's collection in Museum of Science and Art, Dublin.
- One, Clontarf, Dublin Bay, 1837: Thompson, *op. cit.*
- One, Lodmoor, Dorsetshire, 1837: Mansel-Pleydell, "Birds of Dorsetshire," p. 85.
- One seen, Yarmouth, Norfolk, autumn 1839: Stevenson, *op. cit.*
- One seen at Adare, co. Limerick, before 1841: Thompson, *Proc. Dublin Nat. Hist. Soc.*, 1841, p. 9.
- One out of a flock, Castlemaine Bay, co. Kerry, before 1850: Thompson, *op. cit.*, Append., p. 445.

- One shot by Captain Henry Arnott, at Mudeford, Christchurch, Hants, 1840. In collection of E. Hart, Christchurch.
- One on the Blyth, near Yoxford, Suffolk, 1842. In the collection of Sir John Blois.
- One, Hickling, Norfolk, May 7, 1842 : Gurney and Fisher, *Zool.*, 1843, p. 182 ; *Ann. Nat. Hist.*, vol. ix. p. 353.
- One, Shetland, "some years ago:" Edmondston, *Zool.*, 1844, p. 463 ; Crotch, *Zool.*, 1861, p. 7342.
- One, near Thornbury, Gloucestershire : Dillwyn, "Fauna of Swansea" (1848), p. 8 ; Witchell, p. 117.
- One, Perlethorpe, Notts, Jan. 30, 1848 : Sterland, "Birds of Sherwood Forest," p. 194.
- One, Shipley, near Henley : Matthews, *Zool.*, 1849, p. 2601.
- One on the Clyde, near Port-Glasgow, 1850 : Gray, "Birds of the West of Scotland," p. 303.
- One, Swanpool, Cornwall: Cocks, *Contrib. Faun. Falmouth, Nat.*, 1851, p. 114 ; Bullmore, "Cornish Fauna," p. 29.
- One, Bosham, Sussex, Dec. 1855 : Newman, *Zool.*, 1856, p. 4946 ; Borrer, "Birds of Sussex," p. 216.
- One, Trotton, Sussex, May 17, 1859 : Knox, *Ibis*, 1859, p. 395. An interesting account is given of the habits of this bird from personal observation.
- One seen, Yarmouth, May 19, 1866 : Stevenson, *op. cit.*
- One seen, Tile Burn, Aberdeen, Sept. 15, 1867 : R. Gray.
- One, Possil Marsh, near Glasgow, Oct. 1867 : R. Gray.
- One, Dumfries-shire, Oct. 1867 : R. Gray, *op. cit.*
- One, Faversham, Kent. In the Canterbury Museum.
- One, Bridgewater, Somerset, "many years ago." In the collection of the late Mr. Spalding, of Chilton Poldon ; Mathew, *Zool.*, 1881, p. 309 ; and D'Urban and Mathew, "Birds of Devon," p. 313.
- One, Ingham, near Stalham, Norfolk, May 20, 1875 : Stevenson, *Zool.*, 1875, p. 4631 ; and *Trans. Norf. Nat. Soc.*, 1876, p. 208.
- One, Ditchingham, near Bungay, Suffolk, July 1875 : Stevenson, *Zool.*, 1875, pp. 4634, 4697.

One seen in the marshes between Eastbourne and Polegate, May 6, 1880 : Clark Kennedy, *Zool.*, 1880, p. 300 ; and Borrer, " Birds of Sussex," p. 217.

Three seen, Rye, Sussex, Sept. 3, 1883 ; Parkin, *Zool.*, 1883, p. 495.

One, Castleacre, Swaffham, Oct. 12, 1895 : Hudson, *Field*, Nov. 9, 1895 ; and *Zool.*, 1895, p. 434.

One, Sedgemoor, July 1896 : Lewis, *Zool.*, 1897, p. 511.

Obs. A bird recorded as the Black-winged Stilt, shot at Stanningfield, near Bury St. Edmunds, in May 1871 (*Zool.*, 1871, p. 2684), proved to be the Dusky Redshank, *Totanus fuscus* (*Zool.*, 1872, p. 3064). Another reported to have been shot on the Trent near Nottingham (*Zool.*, 1889, p. 387) proved to be a foreign skin sold with fraudulent intent (*Zool.*, 1890, p. 25).

For a note on the food of the Stilt and Avocet, see *Zool.*, 1881, p. 411, and for an account of the former as observed in its breeding haunts in the Eastern Atlas by the late Osbert Salvin, see *Ibis*, 1859, p. 360.

YELLOWSHANK. *Totanus flavipes* (Gmelin). Length, 10·75 in. ; bill, 1·4 in. ; wing, 6·5 in. ; tarsus, 2 in.

Hab. North and South America ; accidental in Europe.

One, Misson, Nottinghamshire, winter 1854-55 : Yarrell, " Hist. Brit. Birds," 3rd ed. vol. ii. p. 637 ; Sterland and Whitaker's " Birds of Nottinghamshire," p. 43.

One near Tadcaster, Oct. 1858 : Sir W. Milner, *Zool.*, 1858, p. 5958 ; Graham, *Nat.*, 1858, p. 291 (doubtful).

One, Marazion, Cornwall, Sept. 12, 1871 : Rodd, *Zool.*, 1871, p. 2807, " Birds of Cornwall," p. 93.

SOLITARY SANDPIPER. *Totanus solitarius* (Wilson).

Length, 7·5 in. ; bill, 1·2 in. ; wing, 5 in. ; tarsus, 1·2 in.

Hab. North and South America.

One on the Clyde, Lanarkshire, "some years ago:" R. Gray, *Ibis*, 1870, p. 292; "Birds of West of Scotland," p. 295.

One in the Scilly Isles, Sept. 21, 1882: Cornish, *Zool.*, 1882, p. 432. In the collection of Mr. Smith Dorrien.

One, Marazion Marsh, near Penzance, autumn 1884: Cornish, *Zool.*, 1885, p. 113. In the collection of Mr. Vingoe of Penzance.

Obs. This bird closely resembles the Wood Sandpiper (*T. glareola*), but has the upper tail-coverts dark greenish-brown instead of white, and each feather in the tail is broadly barred with black across both webs.

BARTRAM'S SANDPIPER. *Actiturus bartramius* (Wilson). Length, 11 in. ; bill, 1 in. ; wing, 6·5 in. ; tarsus, 1·75 in.

Hab. North and South America.

One near Warwick, Oct. 31, 1851: Reid, *Zool.*, 1852, p. 3330; Gurney, *tom. cit.*, p. 3388; More, *Zool.*, 1854, p. 4254; Yarrell, "Hist. Brit. Birds."

One near Cambridge, Dec. 12, 1854: Tearl, *Illustr. Lond. News*, Jan. 20, 1855, and figure; Yarrell, *op. cit.* In the collection of Mr. J. H. Gurney.

One, Mullion, near Falmouth, Nov. 13, 1865: Bullmore, *Zool.*, 1866, p. 37; "Cornish Fauna," p. 31; Rodd, *Field*, Nov. 25, 1865; and "Birds of Cornwall," p. 96.

One, Newhaven, Sussex, some time between 1836 and 1840. In the collection of Mr. Wille, of Lewes, and purchased at his death by J. Dutton, of Eastbourne. *Zool.*, 1864, p. 9118; Borrer, "Birds of Sussex," p. 239.

One on the banks of the river Parret, Cambwitch, Somersetshire: Mathew, *Zool.*, 1877, p. 309. In the collection of Dr. Woodforde, of Taunton.

One, Low Stead, near Boulmer, Northumberland, Nov. 21, 1879: Bolam, *Field*, Dec. 20, 1879.

One, Lincolnshire, Oct. 1880: Harting, *Zool.*, 1880, p. 508. This bird was brought to me in the flesh by Mr. John Cooper. I carefully dissected it and prepared the sternum, noting the contents of the stomach, which consisted chiefly of the remains of British *coleoptera* named by the late E. C. Rye.

One (*l.c.*), St. Keverne, near the Lizard, Oct. 1883: Cornish, *Zool.*, 1883, p. 495.

Obs. In the *Zoologist* for 1864, p. 9118, Mr. Dutton, of Eastbourne, reported his possession of a specimen of Bartram's Sandpiper, shot at Newhaven. On examining this bird, however, I found it to be a Ruff (*Machetes pugnax*) in autumn plumage.

BUFF-BREASTED SANDPIPER. *Tringites rufescens* (Vieillot). Length, 8 in.; bill, 0·9 in.; wing, 5 in.; tarsus, 1·25 in.

Hab. North America in summer; migrating to South America in winter.

One, Melbourne, Cambridgeshire, Sept. 1826: Yarrell, *Trans. Linn. Soc.*, vol. xvi. p. 109, pl. 11; "Hist. Brit. Birds," 3rd ed., vol. iii. p. 60; Eyton, "Rarer Brit. Birds," p. 39, figure.

One, Formby, Lancashire, May 1829: Yarrell, *op. cit.*; Mitchell, "Birds of Lancashire," 2nd ed. p. 230. In possession of the Rev. T. Staniforth, late of Bolton Rectory, Skipton, who furnished the particulars to Yarrell.

One, Sherringham, Norfolk, July 29, 1832: Yarrell, *op. cit.*; Stevenson, "Birds of Norfolk," vol. ii. p. 359.

- One, Yarmouth, autumn 1839: Yarrell, *op. cit.*; Stevenson, *op. cit.*
- One, Yarmouth, Sept. 22, 1841: Fisher, *Zool.*, 1843, p. 182; Stevenson, *op. cit.* In the collection of Mr. J. H. Gurney.
- One, Sussex coast, 1843: Bond, *Zool.*, 1843, p. 148; Borrer, "Birds of Sussex," p. 238. In the collection of the late Mr. F. Bond.
- One, Yarmouth, Sept. 20, 1843: Fisher, *Zool.*, 1843, p. 363. In the collection of Mr. J. H. Gurney.
- One, Marazion, Cornwall, Sept. 3, 1846: Rodd, *Zool.*, 1846, p. 1500; "Birds of Cornwall," p. 100.
- One, Dublin Bay: McCoy, *Ann. and Mag. Nat. Hist.*, 1845, p. 271. In Mus. Nat. Hist. Soc. Dublin.
- One on the Exe, August 1851: D'Urban, "Guide to Exeter," p. 122; D'Urban and Mathew, "Birds of Devon," p. 342.
- One, Lundy Island, autumn 1858. In the possession of Dr. Woodforde, of Taunton.
- One near Chun Castle, Morvah, Cornwall, Sept. 8, 1860: Rodd, *Zool.*, 1860, p. 7236; and "Birds of Cornwall," p. 100. Preserved by Vingoe of Penzance.
- Two, People's Park, Belfast, Oct. 1864: Saunders, *Zool.*, 1866, p. 389; Blake Knox, *tom. cit.*, p. 457. One of these is in the Belfast Museum.
- One, co. Dublin: Blake Knox, *Zool.*, 1866, p. 303.
- One, St. Bryher's, Scilly, Sept. 1870: Rodd, *Zool.*, 1870, p. 2346; and "Birds of Cornwall," p. 100.
- One, Burgh Marsh, Cumberland, Sept. 1876: Macpherson, "Fauna of Lakeland," p. 392.

SPOTTED SANDPIPER. *Tringoides macularius* (Linnaeus). Length, 6·5 in.; bill, 1 in.; wing, 4 in.; tarsus, 0·75 in.

Hab. North America, migrating southwards in winter through Central America and the West Indies to Amazonia and Brazil.

- One, Essex: Edwards's "Gleanings in Nat. Hist.," vol. vi. p. 139. Evidently *Tringoides hypoleucus*.
- Two near Belfast, July and Sept. 1828: Marshall, *Mag. Nat. Hist.*, 1829, p. 395 (doubtful). See Thompson, vol. ii. p. 216.
- One near Runton, Norfolk, Sept. 26, 1839: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 661; Stevenson, vol. ii. p. 234.
- Two seen, Shetland, 1844: *Zool.*, 1844, p. 462; Saxby, "Birds of Shetland," p. 195. *Tringa alpina*.
- One on the Tees Marshes: Hogg, *Zool.*, 1845, p. 1173; Clarke and Roebuck, "Handb. Yorks. Vertb.," p. 77.
- One seen, Bridlington, Yorkshire, March 1848: *Zool.*, 1848, p. 2147; Clarke and Roebuck, "Handb. Yorks. Vertb.," p. 77 (doubtful).
- One, Whitby, March 29, 1849: Sir W. Milner, *Zool.*, 1849, p. 2455; and Higgins, *tom. cit.*, p. 2456, who saw it in the flesh; Clarke and Roebuck, *l.c.*
- Two, Bishop's Auckland, April 1849 and June 3, 1850: Duff, *Zool.*, 1849, p. 2499; 1851, p. 3036. These were *Totanus ochropus*. See Hancock, "Cat. Birds Northumberland," p. 123.
- Several near Brighton: Cavafy, *Nat.*, 1854, p. 234 (doubtful).
- One, Kingsbury Reservoir, Middlesex: Harting, "Birds of Middlesex," p. 180. Seen in the collection of Mr. Bond. A genuine specimen.
- Two on the Mersey, near Fiddler's Ferry, Lancashire, May 1863: Smith, "Notabilia of the Mersey District," p. 51. One of these, in the collection of Mr. C. S. Gregson, is correctly named. Dobie, "Birds of Cheshire," p. 339.
- One, Formby, Lancashire: Byerley's "Fauna of Liverpool," p. 19 (doubtful).
- One, Epworth, Lincolnshire, Feb. 1864: Hudson, *Zool.*, 1864, pp. 9046, 9290. Set up from an American skin (J. H. Gurney).
- Two shot on the Crumbles near Eastbourne, Sussex, Oct.

1866. One of them in the collection of Mr. J. H. Gurney, jun. A genuine specimen.

Two, Aberdeen, Aug. 1867 : Gray, "Birds of West Scotland," p. 299. These were brought to the museum in the flesh, and the stomachs were forwarded for examination to Mr. Robert Gray, at whose house Mr. Gurney subsequently saw one of the birds.

One near Mildenhall, Suffolk, 1869 : Tuck, *Zool.*, 1871, p. 2684 ; Babington, "Birds of Suffolk," p. 240. Seen by Mr. Tuck in possession of Mr. Sparke, of Wells Street, Bury St. Edmunds.

One, Budby, Nottinghamshire : Sterland and Whitaker, "Birds of Sherwood Forest," p. 44 (doubtful).

One near Finnea, co. Longford, Feb. 2, 1899 ; exhibited at a meeting of the Brit. Orn. Club, Feb. 15, 1899.

Obs. It is probable that many of the specimens above recorded were merely the young of *Tringoides hypoleucus*, which before the first moult would be more spotted than their parents, while two were found to be *Totanus ochropus*, and another was mounted from an American skin. Of the rest, those stated to have been procured at (1) Kingsbury Reservoir, (2) on the Mersey, (3) Eastbourne, (4) Aberdeen, (5) Mildenhall, and (6) Finnea, co. Longford, appear to be entitled to rank as genuine immigrants to this country. There is no reason why this species should not occasionally visit the British Islands, as so many others of the American *Scolopacidæ* are known to have done, notably the Buff-breasted Sandpiper, Yellowshank, Pectoral Sandpiper, Baird's Sandpiper, American Stint, and Red-breasted Snipe.

PECTORAL SANDPIPER. *Tringa maculata*, Vieillot.¹

Length from tip of bill, 9 in. ; bill, 1 in. ; wing, 5·25 in. ; tarsus, 1 in.

Hab. North and South America.

- One, Breydon Harbour, Yarmouth, Oct. 17, 1830: Hoy, *Mag. Nat. Hist.*, 1837, p. 116; Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 82. Examined by Audubon, and preserved in the Hoy collection at Boyle's Court, Essex (J. F. Lescher), figured in Babington's "Birds of Suffolk," pl. 4.
- One, Annet L., Scilly, May 27, 1840: Rodd, *Zool.*, 1843, p. 141; "Birds of Cornwall," p. 104.
- One, Hartlepool, Oct. 1841: Yarrell, *op. cit.*; Hogg, "Cat. Birds Durham," p. 28.
- One, Gyllyngvase, near Falmouth: Cocks, *Contrib. Faun. Falmouth, Nat.*, 1851, p. 137; Rodd, p. 104.
- One, Coatham, near Redcar, Yorkshire, June 17, 1853: Rudd, *Nat.*, 1853, p. 275.
- One, Teesmouth, August 1853: Rudd, *Nat.*, 1853, p. 275.
- One near Yarmouth, Sept. 30, 1853: Gurney, *Zool.*, 1853, p. 4124; Stevenson, "Birds of Norfolk," vol. ii. p. 368. In the collection of Mr. J. H. Gurney.
- One near Whitley, Northumberland, Oct. 27, 1855: Bold, *Zool.*, 1855, p. 4808.
- One, Northumberland coast. Shot by W. Proctor, of Durham. Recorded in 1st ed. of this "Handbook."
- One, Caistor, near Yarmouth, Sept. 16, 1865: Stevenson.
- One, Don Mouth, Aberdeen, Oct. 2, 1867: R. Gray, "Birds of West of Scotland," p. 321.
- One, Terrington Marsh, near Lynn, Norfolk, Jan. 9, 1868: Stevenson, *op. cit.*
- Three, Scilly, Sept. 1870: Rodd, *Zool.*, 1870, p. 2346; and "Birds of Cornwall," p. 105.

¹ *Tringa maculata*, Vieillot, "Nouv. Dict. d'Hist. Nat.," xxxiv. p. 465 (1819). *Tringa pectoralis*, Say, "Long's Exped.," i. p. 171 (1823).

- One, Eastbourne, Sept. 1870. Recorded in 1st ed. of this "Handbook."
- One, Thorpe Mere, Aldeburgh, Suffolk, Oct. 5, 1870: Hele, *Field*, Oct. 15, 1870. Another, same place and date, in the Ipswich Museum.
- A pair, Branton Burrows, North Devon, Sept. 12, 1871: Rickards, *Zool.*, 1871, p. 2808.
- One, Thorpe Mere, Aldeburgh, Sept. 1872: Tuck, *Zool.*, 1872, p. 3307; Babington, "Birds of Suffolk," p. 240.
- One, Alexandria, Dumbartonshire, Nov. 24, 1882: Buchanan, *Field*, Dec. 2, 1882; Harting, *Zool.*, 1883, p. 177. Forwarded for my inspection by Sir George Leith Buchanan, who shot it.
- One, Aldeburgh, Suffolk, Nov. 1883: Babington, *op. cit.* In the collection of Mr. N. F. Hele.
- One, Scilly, autumn 1883: Cornish, *Zool.*, 1883, p. 495.
- Three, Breydon Harbour and marshes near Yarmouth, all immature, Sept. 9, 12, and 13, 1890: Butler, *Ibis*, 1891, p. 149; Southwell, *Trans. Norf. Nat. Soc.*, vol. v. p. 203.
- One on the Bure, near Yarmouth, Sept. 8, 1887: Chase, *Zool.*, 1887, p. 433. In the collection of Mr. R. W. Chase, of Edgbaston.
- One near Kilnsea, Holderness, Oct. 2, 1888: Cordeaux, *Nat.*, 1888, p. 354. Figured by Lord Lilford in his "Coloured Illustrations of British Birds."
- Three seen, two shot, near Penrith, Oct. 18, 1888: Macpherson, *Ibis*, 1889, p. 136; and "Fauna of Lakeland," p. 379.
- One, Portumna, co. Galway, Oct. 1888: Williams, *Zool.*, 1889, p. 32. Not noted by Ussher.
- One, Westray, Orkney, Aug. 26, 1889: Ogilvie, *Zool.*, 1889, p. 452; measurements above given; legs and toes yellowish-green.
- One, Breydon Harbour, Norfolk, Aug. 18, 1897: J. L. Newman, *Zool.*, 1898, p. 25.

Four or five, Yorkshire, the last, Sept. 28, 1897: Saunders, "Manual," p. 579.

One, Lydd Beach, Kent, Aug. 2, 1898: Ticehurst, *Zool.*, 1898, p. 480.

Obs. For an interesting account of the breeding habits of this bird, as observed in Alaska and Bering's Strait, see E. W. Nelson, "Report on the Nat. History Collections" from that region, 1877-81, published at Washington, 1887.

SIBERIAN PECTORAL SANDPIPER. *Tringa acuminata* (Horsfield). Length, 8 in.; bill, 1 in.; wing, 5·4 in.; tarsus, 1·2 in.

Hab. Eastern Siberia, China, Japan, Alaska, Malay Archipelago, Java, New Guinea, Australia, and New Zealand.

One, Yarmouth, Sept. 1848: Gurney, *Zool.*, 1849, p. 2392.

In the British Museum. But this specimen was afterwards found to have been mounted from a foreign skin: Gurney, *tom. cit.*, p. 2568. See the 1st ed. of this "Handbook," p. 140, footnote; and Southwell, *Zool.*, 1892, p. 405.

One, Breydon, Norfolk, Aug. 29, 1872: Southwell, *Zool.*, 1892, pp. 356, 405; figured, *Ibis*, 1893, p. 181, pl. v.

BROAD-BILLED SANDPIPER. *Tringa platyrhyncha*, Temminck. Length, 6·5 in.; bill, 1·25 in.; wing, 4 in.; tarsus, 0·75 in.

Hab. Northern Europe and Siberia, migrating southwards in both continents for the winter to the Mediterranean, Red Sea, India, Ceylon, and China.

One, Breydon Harbour, Yarmouth, May 25, 1836: Hoy, *Mag. Nat. Hist.*, 1837, p. 116; Gurney, *Zool.*, 1846, p. 1375; Stevenson, "Birds of Norfolk," vol. ii. p. 360.

- One, Belfast Bay, Oct. 4, 1844: Thompson, *Ann. Nat. Hist.*, vol. xv. p. 309; "Nat. Hist. Irel. (Birds)," vol. ii. p. 282.
- One, Shoreham, Sussex, Oct. 1845: Borrer, *Zool.*, 1845, p. 1394; and "Birds of Sussex," p. 227. In the collection of Mr. William Borrer.
- One, Breydon Harbour, Yarmouth, May 25, 1856: Gurney, *Zool.*, 1856, p. 5159; Stevenson, *tom. cit.*, p. 5160. In the collection of Mr. J. H. Gurney.
- One, Hornsea Mere, Holderness, April 1863: Cordeaux, "Birds Humb. Distr.," p. 135. Clarke and Roebuck, "Handbook Yorkshire Vertebrates," p. 74. In the collection of Sir Henry Boynton.
- One, same place, April 23, 1868: Stevenson, "Birds of Norfolk," vol. ii. p. 361. In his own collection.
- One, Rye, Sussex, Aug. 13, 1887, shot out of a flock of Dunling: Burton, *Field*, Sept. 3, 1887. In the collection of the late Lord Lilford.
- One, Breydon, Norfolk, Sept. 5, 1891: Southwell, *Zool.*, 1891, p. 396.
- One, Rye Harbour, Sussex, out of a small flock of Dunling, Oct. 2, 1895: Bradshaw, *Zool.*, 1895, p. 449. In the collection of Mr. Boyd Alexander, of Cranbrook.
- One, Rye Harbour, Sept. 2, 1896: Boyd Alexander, *Zool.*, 1896, p. 411.
- One, Littlestone, near Rye (but in Kent), a young male, in a flock of Dunling, Sept. 6, 1896. Boyd Alexander, *op. cit.*

BONAPARTE'S SANDPIPER. *Tringa fuscicollis*, Vieillot. Length, 6·5 in.; bill, 1 in.; wing, 4·75 in.; tarsus, 0·9.

Hab. Eastern North America, passing south for the winter through Central America and the West Indies as far as Patagonia and the Falkland Islands.

- One, Stoke Heath, Shropshire: Eyton, "Fauna of Shropshire," *Ann. Nat. Hist.*, vol. ii. p. 53; Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 79.

One, near Belfast, April 1836 ; in Belfast Museum : Yarrell, *op. cit.*

A pair, Hayle, Cornwall, Oct. 13, 1846 : Rodd, *Zool.*, 1846, p. 1554. In the collection of Mr. Rodd.

One, Scilly, Oct. 1854 : Rodd, *Zool.*, 1854, p. 4512.

One, Kingsbury Reservoir, Middlesex, 1856 : Harting, "Birds of Middlesex," p. 273. In the collection of Mr. H. E. Dresser.

One near Bexhill, Sussex, Oct. 8, 1857 : Kent, *Zool.*, 1859, p. 6537. In the collection of Mr. J. H. Gurney.

Two, Scilly, Oct. 1870 : Rodd, *Zool.*, 1870, pp. 2384, 2409. "Birds of Cornwall," p. 106.

Four, Instow, North Devon, Nov. 1870 : C. Smith, *Zool.*, 1870, p. 2409 ; Mathew, *Zool.*, 1871, p. 2441. In the collections of the late Mr. Cecil Smith and Rev. M. A. Mathew.

One Eastbourne, Sussex, Nov. 12, 1870 : Bates, *Zool.*, 1871, p. 2442. In the collection of Mr. J. H. Gurney.

Obs. This bird is the *Tringa bonapartii* of Schlegel, and the Schinz's Sandpiper of Eyton, Yarrell, and other English naturalists. *Tringa schinzii* of Bonaparte, "Amer. Orn.," iv. p. 69, pl. 24 (1832), but not of Brehm, "Beiträge," iii. p. 355 (1822), and Naumann, "Naturg. Vög. Deutschl.," vii. p. 453, pl. 187 (1834), whose *Tringa schinzii* is only a small variety of *Tringa alpina*.

BAIRD'S SANDPIPER. *Tringa bairdi* (Coues). Length, 6·5 in. ; bill, 1·9 in. ; wing, 4·7 in. ; tarsus, 0·8 in.

Hab. North and South America.

One, Rye Harbour, Sussex, Oct. 11, 1900 : Fallon, *Field*, Nov. 24, 1900 ; *Ibis*, 1901, p. 158. Exhibited at a meeting of the British Ornithologists' Club ; "Bull. Brit. Orn. Club," xi. p. 27.

AMERICAN STINT. *Tringa pusilla*, Wilson. Length, 5 in.; bill, 0·8 in.; wing, 3 in.; tarsus, 0·75 in.

Hab. North and South America; West Indies; accidentally in Europe.

One, Marazion Marsh, Mount's Bay, Cornwall, Oct. 10, 1853: Rodd, *Zool.*, 1854, p. 4297; Yarrell, "Hist. Brit. Birds" (preface to 3rd edition). In the collection of Mr. Vingoe of Penzance.

One, Northam Burrows, Devon, Sept. 1869: Rodd, *Field*, Oct. 23, 1869; *Zool.*, 1869, p. 1920; Rickards, *Zool.*, 1870, p. 2025. In the collection of Rev. Marcus S. Rickards of Twigworth Vicarage, Gloucester. Mr. Rickards kindly brought this specimen to London, shortly after he had skinned it, in order that I might see it. We compared it with skins in my collection from North and South America and the West Indies, and were satisfied of its identity with Wilson's species.

One, Northam Burrows, August 22, 1892: shot by Mr. W. B. Hawley Evans, *Zool.*, 1892, p. 411. Exhibited by Mr. Saunders at a meeting of the Zoological Society, *Proc. Zool. Soc.*, 1893, p. 178.

Obs. This Little Sandpiper is the *Tringa pusilla*, Wilson, "Amer. Orn.," v. p. 32, pl. 47 (1812), not of Linnæus; *Tringa minutilla*, Vieillot, "Nouv. Diction.," xxxiv. p. 452 (1819); *Tringa wilsoni*, Nuttall, "Man.," ii. p. 121 (1834), and "Encycl. Méthod.," p. 1089 (1823). It is rather a smaller bird than our *Tringa minuta*, with a more slender bill, and the legs are olive-brown instead of black.

WILSON'S SNIPE. *Gallinago wilsoni*, Temminck.
Length, 10·7 in.: bill, 2·4 in.; wing, 5 in.; tarsus,
1·25 in.

Hab. North America, going south in winter to the Bermudas, West Indies, Colombia, and Brazil.

One, Taplow, Bucks, Aug. 1, 1863. Forwarded in the flesh for identification to Mr. Gould, in whose possession I had an opportunity of examining it. See *Zool.*, 1872, p. 3273.

Obs. Although this specimen had but fourteen feathers in the tail, like our Common Snipe, instead of sixteen, which is the usual number in *G. wilsoni*, the general character of the plumage, and particularly the colour of the axillary plumes (which are closely barred across both webs) showed that it was referable to the American, and not to the European species. It might have lost the outer tail-feather on each side, or may never have possessed more than fourteen; for it appears that in some species of Snipe the number of tail-feathers is not constant. A Snipe forwarded to Gould by Mr. Rodd of Penzance, possessing sixteen feathers in the tail, was thought, chiefly on that account, to be *G. wilsoni*; but in no other respect did it differ from our Common Snipe. Another specimen with sixteen feathers in the tail was sent from Ireland to Sir William Jardine, and is mentioned by Thompson in the Appendix to his third volume, p. 447.

RED-BREASTED SNIFE. *Macrorhamphus griseus* (Gmelin). Length, 10 in.; bill, 2·6 in.; wing, 6 in.; tarsus, 1·5 in.

Hab. Arctic America and Eastern Siberia; wintering in Central and South America. Accidental in Europe.

One, Devonshire, Oct. 1801: Montagu, "Orn. Diet." In the British Museum.

One, Devonshire: Moore, "Catalogue of the Wading Birds of Devonshire," *Mag. Nat. Hist.*, 1837, p. 320. In the collection of Mr. Drew, of Devonport; Rowe, "Cat. Birds Devon," p. 234.

One, Rockeliff Salt-marsh, near Carlisle, Sept. 25, 1835: Yarrell, "Hist. Brit. Birds," vol. iii. p. 47; Macpherson, "Fauna of Lakeland," p. 378. In the collection of T. C. Heysham, of Carlisle.

One, Yarmouth, autumn 1836: Stevenson, "Birds of Norfolk," vol. ii. p. 348; *Zool.*, 1876, p. 5041.

One, Yarmouth, Oct. 1841: Hoy, *Ann. Nat. Hist.*, 1841, vol. vi. p. 236. In the collection of Mr. J. H. Gurney.

Four near Newport, Isle of Wight, May 1842: Bury, *Zool.*, 1845, p. 931. Probably Godwits in summer plumage.

Two seen, one killed, Horsey, Norfolk, Oct. 9, 1845: Gurney, *Zool.*, 1846, p. 1374; Stevenson, *op. cit.*

One, Point of Ayr, Isle of Man, autumn 1847: Hadfield, *Zool.*, 1856, p. 5251. Shot by the recorder.

One, South Huish, Devon, winter of 1855: *Zool.*, 1857, p. 5791. In the collection of Rev. G. S. Marsh, of Sutton Benger, Wilts.

One on the Thames, near Battersea: Harting, "Birds of Middlesex," p. 195. In the collection of Mr. Bond.

One, St. Mary's, Scilly, Oct. 1857: Rodd, *Zool.*, 1857, p. 5832; 1863, p. 8848; "Birds of Cornwall," p. 120. Figured in Blight's "Week at the Land's End," p. 171.

One, Kingsbridge, Devonshire, 1857: Nicholls, *Zool.*, 1857, p. 5791; D'Urban and Mathew, "Birds of Devon."

- One, Hatherleigh, Devon, in the collection of Mr. Byne: D'Urban and Mathew, "Birds of Devon," p. 351.
- One on the sands near Banff, Sept. 25, 1858: Edward, *Zool.*, 1858, p. 6269. A circumstantial account.
- One on the Brent, Stonebridge, Middlesex, Oct. 1862: Harting, "Birds of Middlesex," p. 195. Formerly in the author's collection; now in the British Museum.
- One, Dunbarrie Links, near Largo, Sept. 1867: R. Gray, "Birds of West of Scotland," p. 314. Exhibited at a meeting of the Royal Physical Society, Edinburgh.
- One on the Clyde, Lanarkshire, "some years ago:" R. Gray, *Ibis*, 1870, p. 292.
- One, Yarmouth, Norfolk, Jan. 14, 1873: *vide* J. H. Gurney.
- One near Southport, Lancashire: Hodgkinson, *Zool.*, 1875, p. 4341. In reply to my inquiries Mr. Hodgkinson sent a description of the bird which applied apparently to this species.
- One between Cleethorpes and Tetney Haven, Lincolnshire, Aug. 15, 1882: Cordeaux, *Zool.*, 1882, p. 392.
- One, Crinan, Argyllshire, Sept. 2, 1891: Malcolm, *Zool.*, 1891, p. 427; Hamilton, *Proc. Zool. Soc.*, 1891, p. 627.
- One, Maryborough, Queen's County, Sept. 29, 1893: Williams, *Zool.*, 1893, p. 433; *Irish Nat.*, 1893, p. 302.
- One, co. Tipperary, Oct. 10, 1893; Barrett Hamilton, *Irish Nat.*, 1893, p. 323; *Zool.* 1894, p. 63.

ESQUIMAUX CURLEW. *Numenius borealis* (Forster).
Pl. 22, fig. 10. Length, 13·5 in.; bill, 2·5 in.; wing, 8·5 in.; tarsus, 1·75 in.

Hab. Arctic regions of America from Hudson's Bay to Alaska; occasionally in Greenland; wintering in South America.

- One, Woodbridge, Suffolk, Nov. 1852: Hele, *op. cit.*; Babington, "Birds of Suffolk," p. 241. Formerly in the possession of Mr. Hilling, of Woodbridge, now in the collection of Sir V. Crewe.

- One, Cairn Monearn, near Stonehaven, Kincardineshire, Sept. 6, 1855: Longmuir, *Nat.*, 1855, p. 265; Yarrell, "Hist. Brit. Birds." Exhibited at meeting of Aberdeenshire Nat. Hist. Assoc., Oct. 19, 1855.
- One shot by Capt. Ferrand on the Alde, near Aldeburgh, Suffolk, prior to 1870: Hele, "Notes about Aldeburgh," p. 177.
- One purchased in Dublin in the flesh, Oct. 21, 1870: Blake-Knox, *Zool.*, 1870, p. 2408. Said to have been shot in Sligo: A. G. More, "List of Irish Birds," p. 26, and *Proc. Zool. Soc.*, 1871, p. 299. Presented by the late Sir Victor Brooke to the Science and Art Museum, Dublin.
- One, Aberdeenshire, Sept. 29, 1878: Harting, *Zool.*, 1879, p. 135. Expanse of wing, 27.75 in.; weight, 8 oz.
- One, Forest of Birse, Kincardineshire, Sept. 21, 1880: Harvie-Brown, *Zool.*, 1880, p. 485; Sim, *tom. cit.*, p. 515. The stomach contained crow-berries.
- One, Tresco, Scilly, Sept. 10, 1887: Cornish, *Zool.*, 1887, p. 388.

Obs. This is the *Numenius borealis* of Forster, *Phil. Trans.*, lxii. p. 411 (1772), and Latham, "Ind. Orn." ii. p. 712 (1790); not of Gmelin, whose *borealis*, "Syst. Nat.," i. p. 654 (1788), is *hudsonicus* of Latham, *l.c.*

ORDER IX. HERODIONES

Fam. CICONIIDÆ.

BLACK STORK. *Ciconia nigra* (Linnæus). Pl. 24, fig. 4. Length, 3 ft. 4 in.; bill, 7.75 in.; wing, 21 in.; tarsus, 8.25 in.

Hab. Europe, as far north as Southern Sweden, eastward to Mongolia and China; wintering in India, Persia, and Africa to the Cape.

- One, West Sedge Moor, Somerset, May 13, 1814: Montagu, *Trans. Linn. Soc.*, 1818, vol. xii. p. 19. Atkinson, "Compend. Brit. Orn.," 1834. In British Museum.
- Three, Norfolk, 1823: Stevenson, "Birds of Norfolk," vol. ii. p. 183, *vide* Joseph Clarke of Saffron Walden.
- One on the Tamar, Devon, Nov. 5, 1831: Moore, *Mag. Nat. Hist.*, 1837, p. 321; Rodd, *Zool.*, 1848, p. 2147, and "Birds of Cornwall," p. 126. In the collection of Mr. Rodd.
- One, Otley, Suffolk, Oct. 1832: Hoy, *Mag. Nat. Hist.*, 1834, p. 53. This, no doubt, is the specimen referred to by Stevenson (*op. cit.*) as having been killed at Grundisburgh, Suffolk, in 1832, and recorded in Mitford's "List of Suffolk Birds" (Jesse's "Gleanings," 3rd ser., p. 98), who states that it was in the possession of Mr. Ditton, surgeon, of that place (1835).
- One, Poole Harbour, Dorsetshire, Nov. 22, 1839: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 592. In the collection of Lord Malmesbury at Heron Court.
- One, Romney Marsh, Kent: Pemberton Bartlett, *Zool.*, 1844, p. 624: Stevenson, *op. cit.* In the collection of Mr. Thornhill of Riddlesworth.
- One, Poole Harbour, Dorsetshire, 1849: Mansel-Pleydell, "Birds of Dorset," p. 133. In the collection of Mr. J. H. Gurney.
- One, Market Weighton Common, Yorkshire, 1852: Yarrell, *op. cit.* In the Museum of the Yorkshire Philosophical Society at York.
- One seen on the Exe, near Topsham, Feb. 12, 1855: D'Urban and Mathew, "Birds of Devon," p. 197.
- One near Lydd, Kent, May 5, 1856: Dennis, *Zool.*, 1856, p. 5160.
- One seen Lodmoor, near Weymouth, 1857: Mansel-Pleydell, "Birds of Dorset," p. 133.
- One near Hartlepool, Aug. 1862: Christy Horsfall, *Zool.*, 1862, p. 8196; Hancock's Catalogue, p. 129.
- One, Otmoor, Nov. 1862: Gould, "Birds of Great Britain."

- One, Otmoor, Oxfordshire, Aug. 5, 1865: Prior, *Zool.*, 1877, p. 181; Aplin, "Birds of Oxfordshire," p. 187.
- One, Westacre, Norfolk, May 19, 1867: Hammond, *Ibis*, 1867, p. 382; Stevenson, *op. cit.*
- One, Breydon Harbour, Norfolk, June 27, 1877; Babington, p. 241.
- One on the Deben, near Woodbridge, Suffolk, Sept. 28, 1882: *Field*, Oct. 7, 1882; Babington, "Birds of Suffolk," p. 241. In the possession of Major Cobbold of Ufford.
- One, Tresco, Scilly, May 7, 1890, shot by Mr. Smith Dorrien. I saw this specimen, an adult bird, on its arrival in London for preservation.
- One, Northolt, near Harrow, July 25, 1893, an adult male: D. Meinertzhagen, *Zool.*, 1893, p. 396 (measurements and other details given as above; expanse of wing, 5 ft. 11 in.).

Fam. ARDEIDÆ.

GREAT WHITE HERON. *Ardea alba*, Linnæus.
Pl. 25, fig. 6. Length, 36 in.; bill, 5.5 in.; wing, 15.5 in.; tarsus, 7.75 in.

Hab. South-Eastern Europe; India; North Africa.

- One or more seen in England about 1678: Willughby, "Ornithology," p. 279, Pl. 49. Probably Spoonbills.
- One, Cumberland, "some years since" (1824): Latham, "Gen. Hist. Birds," vol. ix. p. 84. Doubtful; not quoted by Heysham in his List of Cumberland Birds in Hutchinson's "Hist. Cumberland," 1794.
- One seen near Aveton Giffard, on the Avon, Devon, autumn 1805: Montagu, "Orn. Dict. Suppl.," 1813. Probably a Spoonbill.
- One, Loch of Strathbeg, spring 1816: Edward, *Nat.*, 1854, p. 243. Very likely a Spoonbill.
- One, New Hall, Barnsley, in 1821: Clarke and Roebuck, "Yorks. Vertebr.," p. 50. Formerly, but not now, in

- the collection of Sir Joseph Radcliffe; Gurney, *Trans. Norf. Nat. Soc.*, v. p. 188. Doubtful.
- One, Hornsea Mere, Yorkshire, winter 1821: Strickland, "Report Brit. Association," 1838, p. 106; *Mag. Nat. Hist.*, 1839, p. 31; Holme, *Zool.*, 1856, p. 5035. In the Strickland collection in York Museum.
- One on the Isis, Oxfordshire, Sept. 1833: *Zool.*, vii. p. 2600; Yarrell, "Hist. Brit. Birds," 3rd ed., ii. p. 551. No specimen in Mr. Roundell's collection.
- Two seen, rivers Stour and Orwell, Oct. 1834: Shepherd and Whitear, "Cat. Norfolk and Suffolk Birds," *Trans. Linn. Soc.*, vol. xv. p. 40. Possibly the same bird seen on two different occasions.
- Two seen, coast of Banff, about 1834: Edward, *Zool.*, 1860, p. 6847. Probably Spoonbills.
- One near Beverley, Yorkshire, summer of 1835: Strickland, *l.c.* Mr. Gurney considers this to be "well authenticated."
- One near Osberton, Notts, prior to 1838: Strickland, *l.c.* In the collection of Mr. Foljambe, of Osberton. Label on back of case.
- One, Lincolnshire, prior to 1838: Yarrell, *op. cit.*, *vide* Strickland. Doubtful.
- One, Tynninghame, Firth of Forth, June 1840; *The Globe*, Sept. 7, 1840: Yarrell, *op. cit.*; Turnbull, "Birds of East Lothian," p. 42. This specimen, in the collection of the Earl of Haddington, was examined in the flesh by Macgillivray, who has figured the head in his "Hist. Brit. Birds," vol. iv. p. 460, under the name of *Egretta nigrirostris*.
- One seen at Port Carlisle, on the Solway, 1840: Jardine, "Nat. Lib. Birds," iii. p. 135. Probably a Spoonbill. *Zool.*, 1888, p. 330.
- One seen, Romney Marsh, Kent: Pemberton Bartlett, *Zool.*, 1844, p. 624, and 1849, p. 2419.
- One, Thorney Fen, Cambridgeshire, June 1849: Foster, *Zool.*, 1849, p. 2568. In the collection of Col. Strong,

of Thorpe Hall, Peterborough. Seen by Mr. Gurney, who considers it "well authenticated."

One, Strathbeg, Aberdeenshire, 1854: Horn, *Proc. Nat. Hist. Soc. Glasg.*, iv. p. 246. "Most likely an erroneous record" (Gurney, *op. cit.*, p. 190).

One, Buttermere, Cumberland: Robson, "List Birds West Cumberland," *Zool.*, 1854, p. 4619. Mr. Gurney considers this record "unworthy of credit."

One seen near Penzance, Feb. 4, 1866: Bullmore, "Cornish Fauna," p. 27. This may have been a Spoonbill.

One, Branechoil, Loch Katrine, Perthshire, May 1881: *Journ. Roy. Phys. Soc. Edinb.*, ix. p. 568. In the Edinburgh Museum. "Well authenticated" (Gurney).

One, Perthshire, 1887: *Scot. Nat.*, 1888, p. 348. Doubtful. As for two specimens supposed to have been killed in Norfolk, see Stevenson's "Birds of Norfolk," ii. p. 149.

Obs. For a critical examination of the reported occurrences of this bird in Great Britain, see Gurney, *Trans. Norfolk Nat. Soc.*, vol. v. p. 186 (1891). He considers that there are not more than five well-established instances of the appearance of this bird in England and Scotland, namely, those obtained at Hornsea, in the East Riding, 1826; Beverley, Yorkshire, 1835; Tynninghame, Firth of Forth, 1840; Thorney Fen, Cambridgeshire, 1849; and Loch Katrine, Perthshire, 1881.

LITTLE EGRET. *Ardea garzetta*, Linnæus. Pl. 25, fig. 5. Length, 20 in.; bill, 3·25 in.; wing, 10·5 in.; tarsus, 3·75 in.

Hab. South-Eastern Europe, India, China, and Japan, Malay countries, Philippines, and the whole of Africa.

One, Cork Harbour, 1792: Templeton, "Cat. Vert. An. Irel.;" Thompson, "Nat. Hist. Irel. (Birds)," vol. ii.

- p. 157; and Harvey, "Fauna of Cork." Formerly in the Museum of the Royal Dublin Society.
- One, Anglesea: Pennant, "Brit. Zool.," vol. ii. p. 21.
- One, Flatoars, on the Dart, Devonshire, 1816: Rowe's "List Birds of Devon," p. 36; D'Urban and Mathew, "Birds of Devon," p. 185.
- One, Christchurch, Hants, July 1822: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 554; Wise, "New Forest," p. 316; Gurney, *Zool.*, 1869, p. 1512.
- One, Hale, Hants: Wise, *op. cit.*; Gurney, *l.c.*
- One, near Crediton, Devon: Rowe, "Peramb. Dartmoor," p. 234; D'Urban and Mathew, *op. cit.*
- Two, Cornwall, about 1825: Couch, "Cornish Fauna," i. p. 22. Not confirmed by Rodd.
- One, co. Kerry: Harvey, "Fauna and Flora of Cork," p. 12.
- One near Norwich, 1834 or 1835: Stevenson, "Birds of Norfolk," vol. ii. p. 150.
- One, Yarmouth: Stevenson, *op. cit.*
- One, Sutton Coldfield, Warwickshire: Christy, *Mag. Nat. Hist.*, 1836, p. 647.
- One, Inchbroome, Morayshire: Rev. G. Gordon, "Fauna of Moray," *Zool.*, 1844, p. 513.
- One or two on the Tamar: Rowe, *Trans. Plym. Inst.*, 1862-63; D'Urban and Mathew, *op. cit.* In the collection of Mr. Newton of Millaton Hall, Bridestow.
- One below Topsham, on the estuary of the Exe, May 1870: Gatecombe, *Zool.*, 1870, p. 2308; D'Urban and Mathew, "Birds of Devon," p. 185. I examined this specimen in the Albert Memorial Museum, Exeter, Sept. 22, 1870.

SQUACCO HERON. *Ardea ralloides*, Scopoli. Pl. **25**, fig. 7. Length, 21 in.; bill, 2·5 in.; wing, 9·25 in.; tarsus, 2·75 in.

Hab. Resident in Africa; a summer visitor to Southern Russia and the Caspian; occasionally to Central Europe.

One, Boyton, Wilts, 1775: Latham, "Gen. Hist. Birds," vol. ix. p. 110; Montagu, "Orn. Dict. Suppl.," 1813.

A drawing of the bird was presented to the Linnean Society, *Trans. Linn. Soc.*, iii. p. 335.

One, Ormsby Broad, Norfolk, July 20, 1822: Latham, *op. cit.*; Paget, "Sketch Nat. Hist. Yarmouth," p. 7; Dowell, *Zool.*, 1843, p. 78.¹

One near Furnace, on the Conway, July 11, 1828: Gray, "Cat. Birds, Brit. Mus.," p. 148; Dobie, "Birds of Cheshire," p. 318.

One, Wick Pond, Albourne, Sussex, summer 1828. Figured by Borrer, "Birds of Sussex," p. 316.

One, Oulton, near Yarmouth, May 1831: Selby, "Ill. Brit. Orn.," vol. ii. p. 26. In the collection of Mr. J. H. Gurney.

One, Christchurch Harbour, Hants, 1832: Eyton, "Rarer Brit. Birds," p. 100; Wise, "New Forest," p. 316.

One, Ormsby Broad, Norfolk, June 12, 1834: Stevenson, "Birds of Norfolk," vol. ii. p. 152.

One, Lake Lothing, near Lowestoft, June 1834: *ibid.*

One, Flixton, near Bungay, Suffolk: Babington, "Birds of Suffolk," p. 242. In the collection of Mr. R. Ussher.

One, near Kingsbridge, Devon, July 1840: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 562.

One, Penzance, April 1843: Rodd, *Zool.*, 1843, p. 190; "Birds of Cornwall," p. 130.

One, St. Michael's Carhayes, Cornwall, April 1845: Rodd, *Zool.*, 1865, p. 9617; "Birds of Cornwall," p. 130.

One, Kirkoswald, Cumberland, July 1845: Yarrell, *op. cit.*

One, Land's End, May 1847: Rodd, *Zool.*, 1847, p. 830; "Birds of Cornwall," p. 130.

¹ This bird was caught in a fisherman's net which was hanging out to dry. Latham, who notes this circumstance (*op. cit.*), gives the date 20th July 1822; while in Sir W. Hooker's MS. the same fact is referred to as having occurred on the 11th July 1820. Stevenson had reason to believe that Dec. 1820 is the correct date (*cf.* "Birds of Norfolk," vol. ii. p. 152). Subsequently, however, he wrote to me (March 18, 1875) that July 20, 1822, was the correct date after all, referring me to a note by Youell of Yarmouth (*Linn. Trans.*, xiii. 1822, p. 616) in confirmation of his decision.

- One, Warnham Pond, Horsham, July 1849: Borrer, "Birds of Sussex," p. 316.
- Three near the Land's End, 1849: Rodd, *Zool.*, 1849, p. 2498; "Birds of Cornwall," p. 130.
- One, Killeagh Bog, near Youghal, May 26, 1849: Thompson, "Nat. Hist. Ireland (Birds)," vol. ii. p. 158.
- One on the Glasgow Canal, near Stockton, Oct. 9, 1852: Martin, *Nat.*, 1853, p. 61.
- One, Wareham, Dorsetshire, May 5, 1855: Gurney, *Zool.*, 1869, p. 1511.
- One, St. Helen's, Isle of Wight, May 9, 1858: More, *Zool.*, 1860, p. 6855. In the collection of Mr. Borrer.
- One, Castlemartyr Demesne, co. Cork, Oct. 26, 1860: *Proc. Dubl. Nat. Hist. Soc.*, 1864, p. 183.
- One about five miles from Camelford, Cornwall, May 10, 1862: Bullmore, "Cornish Fauna," p. 27.
- One, Redruth, Cornwall, May 1, 1862: Rodd, *Zool.*, 1862, p. 8035; "Birds of Cornwall," p. 130.
- One, Surlingham Broad, Norfolk, June 26, 1863: Stevenson, "Birds of Norfolk," vol. ii. p. 153.
- One, St. Michael Carhayes, Cornwall, April 1865: Rodd.
- One, Encombe, Dorset, 1865: "Birds of Dorset," p. 129.
- One, Bockleton, Shropshire, "some years ago:" Roake, *Zool.*, 1866, p. 81; Beckwith, "Birds of Shropshire."
- One, Friar Maine, Dorchester, May 15, 1867: Grant, *Field*, May 25, 1867: "Birds of Dorset," p. 129.
- One, Wyke Regis, Dorsetshire, July 1, 1867: Thompson, *Zool.*, 1867, p. 915; "Birds of Dorset," p. 129.
- One, Land's End, May 1871: Rodd, *op. cit.*
- One, Mouth of the Laune, co. Kerry, June 10, 1875: *Field*, June 19, 1875; *Zool.*, 1877, p. 57.
- One, Castle Freke, near Galley Head, co. Cork, July 15, 1877: Williams, *Zool.*, 1877, p. 388; Ussher, "Birds of Ireland," p. 163. In the possession of Lord Carberry at Castle Bernard, Bandon.
- One on a small bog near Londonderry, Nov. 24, 1881: *Field*, July 8, 1882.

One, Thorpe Mere, Aldeburgh, June 1882: Babington, "Birds of Suffolk," p. 242.

One, Glansevern, Gathruyl, Montgomeryshire: Archibald, *Zool.*, 1891, p. 471. In the possession of Mr. Humphreys Owen at Glansevern.

One, Waterville, co. Kerry, Sept. 17, 1895: Williams, *Irish Nat.*, 1896, p. 56.

One, Ballynacourty, Dungarvan Bay, co. Waterford, Sept. 12, 1896: Ussher, "Birds of Ireland," p. 163. In the collection of Mr. R. M. Barrington.

One, North Ronaldshay, Orkney, 1897: *Ann. Scot. Nat. Hist.*, July 1897; *Ibis*, 1898, p. 157.

Obs. In addition to the instances above mentioned, Mr. Rocke reported his possession of one (*Zool.*, 1865, p. 9419) which was said to have been killed near Yarmouth on July 7, 1864; but, from inquiries made, Stevenson was convinced that it was not procured anywhere in the county of Norfolk. See "Birds of Norfolk," vol. ii. p. 153.

BUFF-BACKED HERON. *Ardea russata*, Wagler.

Length, 18·5 in.; bill, 2·25 in.; wing, 9·5 in.; tarsus, 3·25 in.

Hab. Southern Europe and Africa.

One, Kingsbridge (between the Start and the Prawle), Devon, October, 1805: Montagu, *Trans. Linn. Soc.*, vol. ix. p. 197; "Orn. Dict. Suppl.," 1813.

One, Martham near Yarmouth, 1827: Stevenson, "Birds of Norfolk," vol. ii. p. 151. Formerly in the Saffron Walden Museum. See Southwell, "Birds of Norfolk," vol. iii. p. 414. It is to be regretted that Stevenson did not examine the specimen before it was destroyed by moths; but he was informed by Mr. Joseph Clarke, of Saffron Walden, that it was a young bird, and that it was killed at Martham.

One, South Devon, April 1851 : Cleveland, of Tapley Park, Bideford, *Zool.*, 1851, p. 3116. Admitted by D'Urban and Mathew, "Birds of Devon," p. 186.

Obs. From Alexandria far into Egypt, the Buff-backed Heron is one of the commonest birds in fields and gardens, even on the outskirts of Cairo, by the banks of the Nile and along the canals. Flocks of them follow the ploughs, and keep within a few paces of them, while most grazing herds are surrounded by these birds, which have become almost domesticated. This is also the case in the south of Spain, where numbers may be seen amongst the cattle in the marshes of Andalusia.

LITTLE GREEN HERON. *Butorides virescens* (Linnaeus). Length, 17 in.; bill, 2·5 in.; wing, 7·25 in.; tarsus, 1·9 in.

Hab. Tropical and Temperate America. Breeds as far north as Manitoba, Ontario, and the Bay of Fundy; wintering from Florida southward.

One, Penrice, St. Austell, Cornwall, Oct. 27, 1889 : Murray Mathew, *Zool.*, 1890, p. 105. In the possession of Sir Charles Sawle, Bart., by whose gamekeeper it was shot. Exhibited by me at a meeting of the Linnean Society, April 17, 1890, and full details given, *Zool.*, 1890, p. 181.

Obs. In the opinion of Messrs. Sclater and Sharpe this bird should be referred to the genus *Butorides*, the species of which possess characters that naturally place them between the true Herons and the Bitterns. As to the way in which a bird of the American species (*virescens* or *lentiginosus*) has con-

trived to reach this country, I have suggested (*loc. cit.*) that it might have come off from the shore at twilight (Bitterns, like Herons, are crepuscular in their habits), and may have perched on the rigging of some vessel which may have shortly weighed anchor and carried it out of sight of the coast. On nearing land after crossing the Atlantic it would take wing as soon as it perceived the shore. An obvious objection to this theory is that in such circumstances it could eat nothing for eight days. But Bitterns, like Herons, have great powers of fasting. An American Bittern, which was captured alive and uninjured, lived in the possession of Dr. Shufeldt for twelve days without eating or drinking, and then died. It is of interest to note that the lower the position a bird occupies in the system, the longer it can exist without food; in this respect approaching its reptilian kin. Lizards, for example, will often live for many weeks without taking food or water.

AMERICAN BITTERN. *Botaurus lentiginosus* (Mont.).

Length, 28 in.; bill, 3 in.; wing, 10·5 in.; tarsus, 3·5 in.

Hab. North and Central America, occurring occasionally in Europe.

One, Piddletown, Dorsetshire, autumn 1804: Montagu, "Orn. Dict." Type in British Museum.

One, Mothecombe, near Plymouth, Dec. 22, 1829: Moore, "Cat. Birds Devon," *Mag. Nat. Hist.*, 1837, p. 320. This specimen cannot now be found, Dr. Moore's collection having been sold and dispersed; but the

owner referred to it, *l.e.*, as a specimen "exactly corresponding to Montagu's description."

One, Christchurch, Hants, 1836: Thompson, "Nat. Hist. Irel. (Birds)," vol. ii. p. 172. This proved to be a specimen of *Nycticorax griseus*, young.

One, Isle of Man, 1836: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. ii. p. 578. Doubtful.

One, Dumfriesshire, Oct. 1844: Yarrell, *op. cit.*; Thompson, *op. cit.* Formerly in the collection of Sir William Jardine.

One near Armagh, Nov. 12, 1845: Thompson, *Ann. Nat. Hist.*, vol. xvii., 1846; "Nat. Hist. Irel. (Birds)," vol. ii. p. 168. In the Belfast Museum.

One, Fleetwood, Lancashire, Dec. 8, 1845: Cooper, *Zool.*, 1846, p. 1248. In Mus. Lit. and Phil. Soc., Preston. Clearly identified by Mr. Cooper, *l.e.*

One near Yarmouth: Gurney and Fisher, *Zool.*, 1848, p. 1965. Doubtful. *Cf.* Stevenson, "Birds of Norfolk," vol. ii. p. 174.

One, Anglesea, Dec. 1851: Gurney, *Zool.*, 1866, p. 145. Examined in the flesh. Announced previously *on wrapper* of *Zool.*, Jan. 1852.

One, Links of Balgownie, Bridge of Don, Aberdeenshire, Nov. 1854: Gray, "Birds of the West of Scotland," p. 280. In the University Museum, Aberdeen.

One, Pentland Hills, Mid-Lothian, about 1861: *Field*, March 4, 1871. In the collection of Mr. Cowan, of Logan House; but this is a common Bittern.

One, Latheron-wheel, Caithness, autumn, 1862: R. Gray, *op. cit.* In Mus. Roy. Phys. Soc., Edinburgh?

One, co. Wexford, Dec. 1862: *Proc. Dubl. Nat. Hist. Soc.*, 1863, p. 10; Ussher, "Birds of Ireland," p. 169.

One near Barcombe, Lewes, Oct. 29, 1863: *Field*, Nov. 7, 1863.

One near Canterbury: J. H. Gurney, *Zool.*, 1866, p. 145. Identified by Mr. Gurney.

One, Pevensey Marshes, Sussex, Nov. 26, 1867: Dutton,

Zool., 1868, p. 1098; Borrer, "Birds of Sussex," p. 321.

In the collection of Sir John Crewe.

One, Castlering, on the river Fane, near Dundalk, co. Louth, Nov. 18, 1868: Lord Clermont, *Zool.*, 1869, p. 1517, who presented it to the Museum of the Royal Dublin Society.

One, Guernsey, Oct. 27, 1870: Harting, *Field*, Jan. 14, 1871; C. Smith, *Zool.*, 1871, p. 2642. In the collection of Mr. Cecil Smith, of Bishop's Lydeard.

One, Woodhill, near Liskeard, Cornwall, Dec. 4, 1870: Harris, *Field*, *l.c.* This proved to be *stellaris*.

One, Cahir, co. Tipperary, Oct. 31, 1870: Blake Knox, *Zool.*, 1870, p. 2408. In the possession of Mr. Fennell, of Garryroan.

One, Slingsby, near Malton, Yorks., Dec. 4, 1871. In the collection of Sir John Crewe.

One, Dumfriesshire, Mar. 25, 1873: J. H. Gurney, *Zool.*, 1876, p. 4929. In his collection.

One, Annagh Bog, near Kinsale, co. Cork, Nov. 25, 1875. In the Museum of Queen's College, Cork.

One near Myross Wood, co. Cork, Oct. 1875: Harvey, *Field*, Dec. 18, 1875. In the possession of Mr. H. S. Townshend, of Derry, Ross Carberry.

One, near Barnstaple, Devon, Oct. 1875: Rowe, *Field*, Nov. 20, 1875; Murray Mathew, *Field*, Dec. 4, 1875.

One between Youghal and Cork, Dec. 1875: *Field*, Nov. 10, 1883; Ussher, "Birds of Ireland," p. 169.

One, Islay, Hebrides, Jan. 1876: J. Lumsden, *Field*, Jan. 22, 1876; *Zool.*, 1876, p. 4801.

One, Cadnam, New Forest, Feb. 1876: Bidwell, *Field*, March 10, 1877.

One shot at Castlering, co. Louth, Nov. 18, 1868, was presented to the Dublin Museum by Lord Clermont, and another was received by Glennon, of Dublin, for preservation about the same date.

One, Amberley, Sussex, Nov. 30, 1879: Borrer, "Birds of Sussex," p. 322.

One near Ballinahinch, co. Down, Nov. 1, 1883 : *Field*, Nov. 10, 1883. In the collection of Mr. H. Blake Knox.

One, Ballyronan Moss, near Magherafelt, co. Londonderry, Oct. 1889 : Patterson, *Zool.*, 1890, p. 24.

One, Maddenstown Bog, co. Kildare, Oct. 31, 1889 : Scharff, *Zool.*, 1890, p. 26. In the Museum of Science and Art, Dublin.

One, Maddenstown Bog, co. Kildare, Feb. 20, 1891 : Williams, *Zool.*, 1891, p. 218.

Obs. This bird is the *Ardea lentiginosa*, Montagu, "Orn. Dict. Suppl." (1813) ; *Ardea minor*, Wilson, "Am. Orn.," vol. viii. p. 35, Pl. lxx. (1814). I have compared the type of Montagu's *lentiginosa* with specimens of *minor* from North America, and find them to be in every respect identical. Bonaparte was mistaken in supposing them to be distinct ("Geogr. and Comp. List," 1838, p. 48). As distinguished from the European *stellaris*, the American species is much smaller in size, with smaller and more slender legs and feet, and invariably has the primaries of a uniform leaden-brown colour, while in *stellaris* the same feathers are broadly barred across both webs with buff. This last peculiarity will at all times serve to distinguish the species.

A good account of it is given by Mr. Endicott in the *American Naturalist*, vol. iii. p. 169, and some remarks on its habits in confinement, as observed by Dr. Shufeldt, will be found *Zool.*, 1893, p. 228. It is remarkable that although the American Bittern has been procured about a dozen times in Ireland, in no instance has it been met with on the west coast, where, if migrating directly from America, it

might be naturally expected to arrive. Still more curious is it that this American bird should have been first made known by Montagu from a specimen obtained in England a year before it was described by Wilson as a native of America. As to the means by which it has contrived to reach this country, see the remarks on pp. 446-447.

ORDER X. FULICARIÆ

Fam. RALLIDÆ.

CAROLINA CRAKE. *Crex carolina* (Linnaeus). Length, 8 in.; bill, 0·9 in.; wing, 4·25 in.; tarsus, 1·4 in.

Hab. Temperate North America, wintering in Central America, the West Indies, and South America.

One on the Kennet, near Newbury, Berks, Oct. 1864 : Newton, *P.Z.S.*, 1865, p. 196 ; Eyre, *Zool.*, 1865, p. 9540 ; Clark Kennedy, "Birds of Berks and Bucks," p. 196.

Obs. Audubon mentions two instances of this species having been met with at sea ; and as a proof that the short-winged *Rallidæ* are not incapable of sustained flight, it may be noted that during the voyage of the steamship *Nova Scotia* from Liverpool to Quebec in October 1865, when in lat. 26° 28' N., long. 23° 24' W., more than 500 miles from the coast of Ireland, a Virginian Rail, *Rallus virginianus*, came on deck and was captured. Both this and the last-named species visit the Bermudas annually, although this group of islands is distant from Cape Hatteras, the nearest point of the North-American coast, about 600 miles ! The well-known Corncrake, too, is a summer visitant to Greenland,

has been met with on several occasions on the eastern coast of the United States, and has also been procured in Bermuda. A Water-Rail (*Rallus aquaticus*) alighted on the yard-arm of a man-of-war about 500 miles to the westward of Cape Clear, and at the same distance from any known land (Yarrell, 4th ed., vol. iii. p. 161). Several instances are on record of the appearance in Great Britain of Purple Gallinules, *Porphyrio hyacinthinus*, *P. chloronotus*, and *smaragdnotus*, in a quasi-wild state; but these birds are not migratory, and are frequently imported. Doubtless those recorded had escaped from some ornamental water, and indeed in some instances their owners wrote to claim them, or at least to intimate that they had lost birds which answered to their description. See my article on Purple Gallinules in "Essays on Nat. Hist.," pp. 342-350; *Zool.*, 1884, p. 482, and 1886, p. 71.

ORDER XI. ANSERES

Fam. ANATIDÆ.

AMERICAN SWAN. *Cygnus americanus*, Sharpless.¹

Length, 54 in.; bill, 3·75 in.; wing, 21·5 in.; tarsus, 4·25 in.

Hab. North America. Breeds on the shores of the Arctic Ocean, and migrates south to the Gulf of Mexico.

In February 1841, Macgillivray obtained from a poulterer in Edinburgh a specimen of this Swan,

¹ *Cygnus americanus*, Sharpless, Doughty's "Cab. Nat. Hist.," i. p. 185, Pl. xvi. (1830); *Cygnus bewickii*, Swainson, "Faun. Bor.-Amer.," ii. p. 224 (1831); *Cygnus columbinus*, Ord, in Guthrie's "Geogr.," 2nd Amer. ed., p. 319 (1815).

shot in the south of Scotland, which he at first mistook for Bewick's Swan; but on dissecting it he found differences indicative of a distinct species; and on comparing its sternum, windpipe, and digestive organs with those of *Cygnus americanus*, he found it to belong to that species. Macgillivray, "Hist. Brit. Birds," vol. iv. p. 682, and "Manual Brit. Birds (Water Birds)," p. 158.

TRUMPETER SWAN. *Cygnus buccinator*, Richardson. Length, 60 in.; bill, 4.25 in.; wing, 25 in.; tarsus, 4.5 in.

Hab. Chiefly the interior of North America, from the Gulf Coast to the fur countries, breeding from Iowa and Dakota northward, west to the Pacific, but rare or casual on the Atlantic.

Five seen, four shot, near Aldeburgh, Suffolk, Oct. 27, 1866: Hele, "Notes about Aldeburgh," p. 147.

Obs. These birds were described by Mr. Hele (*l.c.*) under the heading "Swan, *species incerta*;" but Mr. J. H. Gurney, writing to me from Aldeburgh, under date Sept. 26, 1871, remarked: "Since staying here I have seen Mr. Hele's 'Swan, *species incerta*,' p. 147 of his 'Aldeburgh Notes,' and believe it to be really an American Trumpeter Swan, giving that species a title to be considered an accidental visitor to this country." An imported Trumpeter Swan paired with a male Mute Swan at Vaynol Park, Bangor, and reared broods of hybrid cygnets three years in succession, viz., in 1892, 1893, and 1894. I saw the parent birds and the broods. In the latter the bill was almost black, except towards

the tip, which was flesh-coloured. The cygnets are described in *Zool.*, 1895, p. 24.

CASSIN'S SNOW GOOSE. *Anser albatrus*, Cassin.

Length, 28 in.; bill, 2·1 in.; wing, 15 in.; tarsus, 3 in.

Hab. North America; Hudson's Bay Region.

Two out of a flock, Wexford Harbour, Nov. 1871: Howard Saunders, *Proc. Zool. Soc.*, 1872, p. 519.

Two, Belmullet, co. Mayo, Oct. 1877: Harting, *Zool.*, 1878, pp. 419, 453; Bidwell, *tom. cit.*, p. 453; Harting, *Zool.*, 1881, p. 308.

Three seen in flight near Beverley, Yorkshire, Jan. 1891: Sharp, *Field*, Jan. 24 and Feb. 7, 1891.

Four on the Solway: Macpherson, *Field*, Jan. 31, 1891.

Flock of twenty on the sands to the north of Holy Island, Northumberland, Jan. 1892: Bolam, *Nat.*, 1892, and long article in *Newcastle Journ.*, Jan. 14, 1892.

Obs. As to the propriety of separating *Anser albatrus*, Cassin, from *cærulescens*, Linn. (*hyperboreus*, Pall.), see Baird, "Birds N. America," p. 760. The difference is chiefly one of size. Dr. Elliott Coues does not regard them as specifically distinct, but treats *albatrus* as a smaller race of *hyperboreus*. See his "Birds of the North-West," p. 549, and *Zool.*, 1878, p. 454.

RED-BREASTED GOOSE. *Bernicla ruficollis* (Pallas).

Pl. 27, fig. 7. Length, 22 in.; bill, 1 in.; wing, 14 in.; tarsus, 2 in.

Hab. Northern Asia and Siberia.

One near London, winter 1766: Montagu (*vide* Latham), "Orn. Dict." According to Fox ("Synops. Newcastle Museum," p. 97), this date should be Jan. 1776.

- One near Wycliffe, Yorkshire, about the same time: Bewick, "Brit. Birds," vol. ii. p. 280; Selby, "Ill. Brit. Orn.," vol. ii. p. 276; Montagu, *op. cit.*
- One, Halvergate, Norfolk, 1805: Stacey, "Hist. Norf.," vol. i. p. lxii.; Sheppard and Whitear, "Cat. Norfolk and Suffolk Birds," p. 55.
- One or more, Cambridgeshire, winter 1813: Stephens, "Shaw's Zoology," vol. xii. p. 53, pl. 43.
- One near Berwick-on-Tweed, 1818: Fleming, "Hist. Brit. An.," p. 128. Sold to Dr Leach for £27, and preserved in the British Museum.
- One, Kenton Warren, Devonshire, 1828: Moore, "Catalogue of Birds of Devonshire," *Mag. Nat. Hist.*, 1837, p. 360.
- One, Ireland, prior to March 1833: Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 64.
- One, Teign Marshes, Devon, Feb. 1, 1837: Moore, *l.c.*
- Two seen on the Tees, Durham, "of late" (1845): Hogg, "Catalogue Birds S.E. Durham," p. 31.
- One shot in Cowpen Marsh, Durham, about the same time: Hogg, *l.c.*, and *Zool.*, 1845, p. 1178.
- One seen, Loch Strathbeg, "some years ago" (1852): Macgillivray, "Hist. Brit. Birds," vol. iv. p. 636.
- Two said to have been shot 15 or 20 years ago (1852) in the flooded meadows at Sowerby near Garstang, Lancashire. Hornby, *Zool.*, 1872, p. 3236.
- One, Maldon, Essex, Jan. 6, 1871: Poole, *Field*, Jan. 21, 1871; Harting, *Zool.*, 1871, p. 2513. I purchased this bird for £5 a few days after it was shot. It is now in the collection of Mr. Marshall, of Taunton.

Obs. In addition to the above-mentioned records, the Red-breasted Goose is included in the following catalogues, although without any particulars:—Couch, "Cornish Fauna," p. 24; Rodd, in "Guide-Book to Cornwall," p. 129; *Somerset Archæol. Proc.*, p. 146; Osborne and Shearer's

"Birds of Caithness," in *Proc. Roy. Soc. Edinb.*, vol. ii. p. 340; and Wilson, "Voyage Round Scotland," vol. ii. p. 180. Weight, 3 lbs. (Montagu).

SPUR-WINGED GOOSE. *Plectropterus gambensis* (Linnæus). Length, 38 in.; bill, 3 in.; wing, 18 in.; tarsus, 3 in.

Hab. Western and Southern Africa.

One, St. Germans, Cornwall, June 1821: Bewick, "Brit. Birds," vol. ii. p. 313, figure.

One near Banff, Feb. 1855: *Nat.*, 1855, p. 181; Edward, *Zool.*, 1860, p. 6968; Gray, "Birds of West of Scotland," p. 353.

One, Boveney Weir, Berks, winter 1858-59: Clark Kennedy, "Birds of Berks and Bucks," p. 201.

One, Upavon, Wilts, Sept. 4, 1869: Dr. Henry Moses, of Bainton House, Reading, *Science Gossip*, 1870, p. 51. Preserved at the Manor Farm, Upavon.

Obs. Having regard to its geographical distribution, this species cannot be regarded as a genuine immigrant. The few examples met with in this country in a state of liberty must doubtless have escaped from semi-domestication.

RUDDY SHELD-DRAKE. *Tadorna rutila* (Pallas). Length, 24 in.; bill, 1·75 in.; wing, 14·5 in.; tarsus, 2·25 in.

Hab. Southern and Eastern Europe; North Africa; and Western Asia to China and Japan.

One near Blandford, Dorset, winter 1776: Fox, "Synops. Newcastle Museum." In the Newcastle Museum.

One, south of England: Selby, "Ill. Brit. Orn.," vol. ii. p. 294. In the collection of the late Mr. Selby.

- One, Sanday, Orkney, October 1831: Baikie and Heddle, "Hist. Nat. Orcadensis," p. 74; Macgillivray, "Hist. Brit. Birds," vol. v. p. 21.
- One, Caithness: Wilson's "Voyage Round Scotland," vol. ii. p. 180; Shearer and Osborne, "Birds of Caithness," in *Proc. Roy. Soc. Edinb.*, vol. ii. p. 340; Gray, "Birds of West of Scotland," p. 362. In the collection of Mr. Sinclair, of Wick.
- One, Iken, near Orford, Suffolk, Jan. 1834: *Mag. Nat. Hist.*, 1834, vol. vii. p. 151; Yarrell, "Hist. Brit. Birds," 3rd. ed., vol. iii. p. 236. In the possession of Mr. Manning, of Woodbridge.
- One on the Murrough of Wicklow, July 7, 1847: Thompson, *Ann. Nat. Hist.*, vol. xx. p. 171; "Nat. Hist. Irel. (Birds)," vol. iii. p. 65. In the collection of Mr. Warren.
- One seen near Blackstakes, Suffolk, 1864, in company with Common Sheld-drakes: Hele, "Notes about Aldeburgh," p. 150.
- One said to have been taken in a decoy on the Trent, near Epworth: Hudson, *Zool.*, 1864, pp. 9046, 9290; but shown to have been a mistake: Newton, *tom. cit.*, p. 9363.
- One near Tralee, co. Kerry, Aug. 17, 1869: Blake Knox, *Zool.*, 1870, p. 2105.
- One killed "some years ago" at Cottingham, Yorkshire; seen by H. B. Hewetson (*vide* Clarke).
- One shot in a marsh in Clonea, Waterford, "about two years ago" (*vide* A. G. More, writing in 1873). Now in the Dublin Museum.
- One on the Solway, summer of 1888: Hastings, *Trans. and Journ. Dumfries Nat. Hist. Soc.*, 1890, p. 128.
- Four seen, one shot, Romney Marsh, Kent, Sept. 8, 1884.

Obs. Mr. Gurney informs me that this species has twice been killed in Norfolk, but that on each occasion the bird was found to have escaped from

semi-domestication. It is probable that this has been the case with other specimens, which, on being found at large, were supposed, in consequence, to have been truly wild. But in 1892, a year of great drought in Southern and South-Eastern Europe, these birds appeared in such numbers in different parts of the British Isles as to favour the presumption of a genuine immigration. The statistics were collected and published by Mr. F. M. Ogilvie, *Zool.*, 1892, pp. 392–398.

AMERICAN WIGEON. *Anas americana*, Gmelin.

Length, 20 in.; bill, 1·3 in.; wing, 10·25 in.; tarsus, 1·5 in.

Hab. North America; breeding in Alaska and British America as far north as lat. 70°; occasionally in Northern United States, and wintering in the Southern States, West Indies, and Mexico.

One, Leadenhall Market, winter 1837–38: Blyth, *Nat.*, vol. iii. p. 417; Yarrell, “*Hist. Brit. Birds*,” 3rd ed., vol. iii. p. 293; Gurney, *Zool.*, 1864, p. 9024. A male, in the collection of Mr. Gurney.

One, Burn of Boyndie, Banffshire, Jan. 1841: Edward, *Zool.*, 1860, p. 6870. Doubtful; bird not preserved.

One, Strangford Lough, Feb. 1844: Thompson, “*Nat. Hist. Irel. (Birds)*,” vol. iii. p. 112. Not seen by Thompson; only described to him.

Others, Belfast Bay: Thompson, *op. cit.*

One, Essex coast, Jan. 1864: S. H. Carter, *Zool.*, 1864, p. 8962. A female bird; very doubtful.

One on the Taw, near Barnstaple, April 20, 1890: Mathew, *Zool.*, 1870, p. 2182. Proved to be a variety of the common Wigeon. See D’Urban and Mathew, “*Birds of Devon*,” p. 223.

One, from the Yorkshire coast, in a game-dealer's shop at Leeds, Feb. 26, 1895: Purchased by Sir R. Payne Gallwey, in whose collection it is preserved. *Field*, March 9, 1895. Exhibited by Mr. Howard Saunders at a meeting of the Zoological Society, April 2, 1895 (*Proc. Zool. Soc.*, 1895, p. 273), and figured by Lord Lilford in his "Coloured Illustrations of British Birds."

Obs. Out of seven reported instances of the occurrence of the American Wigeon in this country, only two (the first and last) can be regarded as trustworthy.

RED-CRESTED DUCK. *Fuligula rufina* (Pallas).

Pl. 30, figs. 11, 12. Length, 22 in.; bill, 1·9 in.; wing, 10 in.; tarsus, 1·5 in.

Hab. South-Eastern Europe, North Africa, and Asia.

One, Breydon Harbour, Norfolk, July 1818: Hunt, "Brit. Orn.," vol. ii. p. 333, fig.

Two, same harbour, winter 1826: Hunt, in Stacey's "Norfolk," vol. i. p. lxiii.

One, Boston, Lincolnshire, Jan. 1826: Yarrell, *Zool. Journ.*, vol. ii. p. 492.

Several in Leadenhall Market, the same winter: Bartlett, *Nat.*, vol. iii. p. 420.

One, Surlingham, Dec. 1827: Hunt, *l.c.*

One, Horsey Mere, Norfolk, Jan. 12, 1844: Gurney, *Zool.*, 1844, p. 576. Formerly in the collection of Mr. Rising of Horsey, now in the Norwich Museum.

One, Swanpool, Cornwall, Feb. 1845: Bullmore, "Cornish Fauna," p. 37. Probably the specimen referred to by Yarrell as obtained at Falmouth in March 1845.

One out of eighteen, on the Thames, near Erith: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 330. Figured in Gould's "Birds of Europe."

One, Milford Haven: G. R. Gray, "Cat. Brit. Birds in

- Brit. Mus.," p. 198. In the British Museum. Probably the bird shot at Stackpole, Pembrokeshire, and presented by Lord Cawdor to the British Museum. See Mathew, "Birds of Pembrokeshire," p. 71, and Dix, *Zool.*, 1869, p. 1678.
- One, "Great Britain, from Mr. Turner's collection:" G. R. Gray, *l.c.* In the British Museum.
- One, Colchester, Essex: Jan. 1844. In the Museum of the Cambridge Philosophical Society.
- One, Boston, Lincolnshire, 1854: Newman, *Zool.*, 1854, p. 4166; Cordeaux, "Birds of Humber," p. 171.
- One, Craignish, Jan. 1862: Gray, "Birds of West of Scotland," p. 383. In possession of Capt. Orde, of Kilmory.
- One, Braunton, North Devon, Dec. 21, 1867: Mathew, *Zool.*, 1868, p. 1098; "Birds of Devon," p. 231.
- One, Hickling Broad, Norfolk, Feb. 1868: Stevenson, *Zool.*, 1868, p. 1128; "Birds of Norfolk," iii. p. 200.
- One, female, Stackpole, Pembrokeshire: Dix, *Zool.*, 1869, p. 1678. See note above, under Milford Haven.
- One, Yarmouth, Norfolk (Doubleday): Gurney, *Trans. Norf. Nat. Soc.*, 1876, p. 225. In the collection of the late W. Borrer.
- One, Tralee, co. Kerry, Jan. 18, 1881: Payne Gallwey, *Field*, March 5, 1881; and "Fowler in Ireland," p. 102; Ussher, *Zool.*, 1881, p. 143. Exhibited by Mr. A. G. More at a meeting of the Zoological Society, *Proc. Zool. Soc.*, 1881, p. 409.
- One, Haweswater, Westmorland, Oct. 9, 1897 (a male): *Ibis*, 1898, p. 176.

BUFFLE-HEADED DUCK. *Clangula albeola* (Linnaeus).

Length, 12·5 in.; bill, 1 in.; wing, 6 in.; tarsus, 1 in.

Hab. North America, Labrador to Alaska; wintering in Mexico; wandering occasionally to Europe.

- One near Yarmouth, winter 1830: Paget, "Sketch Nat. Hist. Yarmouth," p. 11; Lubbock, "Fauna of Norfolk,"

- p. 119. Formerly in the collection of Mr. Rising, of Horsey, near Yarmouth; now in the Norwich Museum.
- One, West Mud, near Devonport, winter 1841. In the collection of Rev. W. Hore, of Barnstaple, who in Sept. 1870 showed me the bird, and gave me the above-mentioned particulars. But see D'Urban and Mathew, "Birds of Devon," p. 238.
- One, Bessingly Beck, near Bridlington, Yorkshire, winter 1864-65: Cordeaux, *Zool.*, 1865, p. 9659. The precise locality was subsequently communicated in a letter by Mr. Cordeaux. In the collection of Mr. J. Whitaker.
- One in British Museum, labelled "Norfolk:" Gray, "Cat. Brit. Birds in Brit. Mus.," p. 226. The authenticity of this specimen is very doubtful.
- One, Loch of Loriston, Aberdeenshire, January 1865: R. Gray, "Birds of West of Scotland," p. 396. In the possession of Mr. Angus of Aberdeen.
- One, Loch of Strathbeg, "many years ago:" R. Gray, *l.c.* In the Banff Museum.

Obs. The Buffle-headed Duck is included by Donovan in his work on British Birds (vol. x. pl. 226); but no authority is given for such insertion, nor is any locality mentioned.

HARLEQUIN DUCK. *Histrionicus torquatus*, Bonap.
Length, 17·5 in.; bill, 1·25 in.; wing, 8 in.; tarsus, 1·3 in.

Hab. Northern Asia and America; accidentally in Europe.

A pair, Scotland: Montagu, "Orn. Dict.;" Sowerby, "British Miscellany" (1806), p. 11, pl. 6.

One, Orkney: Sowerby, *l.c.*; Baikie and Heddle, "Hist. Nat. Orcadensis," p. 81. Probably authentic.

One, Devonshire, winter 1830: Moore, "Cat. Birds

- Devon," *Mag. Nat. Hist.*, 1837, p. 360. According to Mr. Gatecombe, this was a young Long-tailed Duck.
- One, Yarmouth: Paget, "Sketch Nat. Hist. Yarmouth," p. 12. Doubtful. See "Stevenson," vol. iii. p. 219.
- One, Oulton Park, Cheshire, Dec. 1840: Yarrell, 3rd ed., vol. iii. p. 366. Yarrell did not see this bird, for it was not preserved, but heard of it from Agassiz, who was on a visit to Sir P. Egerton at Oulton Park, when it was shot. See Gurney, "Rambles of a Naturalist," p. 267. Very likely a young Golden-eye.
- One, included in Sinclair's "Catalogue of the Birds of Caithness;" as also in Shearer and Osborne's List, *Proc. Roy. Phys. Soc. Edinb.*, ii. p. 340; Gray, "Birds West of Scotland," p. 394.
- Two, Torquay, winter 1846: Battersby, *Zool.*, 1847, p. 1697. Proved to be the young of the Long-tailed Duck: A. Newton, *Ibis*, 1859, p. 165.
- One, Banffshire, autumn, 1851: E. Newton, *Zool.*, 1852, p. 3331. Also proved to be a Long-tailed Duck: A. Newton, *l.c.*
- One, Loch of Strathbeg, "a few winters since:" Edward, *Nat.*, 1854, p. 242. Not preserved, and very doubtful.
- One near Coleshill, Warwickshire, April 7, 1857: Foggitt, *Nat.*, 1857, p. 163. Proved to be a female Scaup: Buckley, *Nat.*, 1858, p. 124; A. Newton, *l.c.*
- One, Buchan, Aberdeenshire, 1858: Ross King, "Sportsman and Naturalist in Canada," p. 231; and R. Gray, *op. cit.*, p. 394.
- One, captured in decoy, Hornby Castle, Bedale, about 1860: Clarke and Roebuck, "Yorks. Vert.," p. 58.
- One, Filey, Yorkshire, autumn 1862: Clarke and Roebuck, "Handbook Yorks. Vert.," p. 58. In the collection of Mr. Whitaker, of Rainworth.
- Two young males, coast of Northumberland near the Farne Islands, Dec. 2, 1886; two others seen at the same time: Julian Tuck, *Zool.*, 1887, pp. 70, 159, 196.

SURF SCOTER. *Ædemia perspicillata* (Linnæus).

Length, 21 in.; bill, 1·5 in.; wing, 9·5 in.; tarsus, 1·5 in.

Hab. Coasts of North America; accidental in Northern Europe to Swedish Lapland.

One, received in the flesh "a few seasons ago" (1838) by Bartlett for preservation, locality not stated: Blyth in Wood's *Naturalist*, vol. iii. p. 420.

One, Belfast Bay, co. Down, Sept. 9, 1846: Thompson, "Birds of Ireland," vol. iii. p. 118; Warren, *Irish Nat.*, 1897, p. 59. In the Belfast Museum.

One seen, Rona's Voc, Shetland, June 1847: Dunn, *Zool.*, 1848, p. 2067; Gray, "Birds of West of Scotland," p. 383.

One near Weymouth, Dorset, winter 1851: Yarrell, *op. cit.*; Mansel Pleydell, "Birds of Dorset," p. 162.

One, Musselburgh Bay, Firth of Forth, spring of 1852: Martin, *Nat.*, 1853, p. 83; Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 324; Turnbull, "Birds of East Lothian," p. 45. In the collection of W. F. Eyre, Christchurch, Hants.

One between Weymouth and Purton, Dec. 1853: Thompson, *Zool.*, 1854, p. 4255; Mansel Pleydell, p. 162.

One, Aberdeen coast, Nov. 1855: Sir W. Jardine, MS. In the collection of the late Edward Hargitt.

One, Crofton, Cumberland, Aug. 1856: Eyton, "Rarer Brit. Birds," p. 81, fig. In the collection of Mr. J. H. Gurney.

One, Gristhorpe, near Scarborough, Oct. 25, 1860: Bell, *Zool.*, 1860, p. 7274; 1861, p. 7385. Proved to be a mistake.

One, St. Mary's, Scilly, Sept. 1865: Rodd, *Zool.*, 1865, p. 9794; "Birds of Cornwall," p. 150.

One, Holm, near Stornoway, winter 1865: Gray, "Birds of West of Scotland," p. 383. In the collection of Sir James Matheson.

- One, Swanbister, Orkney, March 1866: Gray, *op. cit.*
- One, Trescoë, Scilly, Oct. 28, 1867: Rodd, *Zool.*, 1867, p. 1017, and 1868, p. 1059; "Birds of Cornwall," p. 151.
- One, Orkney, Feb. 7, 1876: Pike, *Field*, Feb. 19, 1876, *Zool.*, 1879, p. 335. In the collection of Mr. T. M. Pike.
- One, Orkney, Oct. 23, 1880: Walker, *Zool.*, 1881, p. 59.
- One, Clontarf, co. Dublin, Oct. 1880: Payne Gallwey, "Fowler in Ireland," p. 112; Ussher, "Birds of Ireland," p. 216.
- One, Longhope, Hoy Island, Orkney, Nov. 1872: Clark Kennedy, *Field*, Mar. 11, 1876.
- One at entrance of Loch Stenness, Stromness, Orkney: Clark Kennedy, *Field*, Mar. 11, 1876.
- One, Lytham, Lancashire, Dec. 9, 1882: Thompson, *Zool.*, 1884, p. 29.
- One, Crookhaven Harbour, co. Cork, Nov. 5, 1888: Barrington, *Zool.*, 1889, p. 32; Ussher, "Birds of Ireland," p. 216.
- One, Dugort, Achill Island, co. Mayo, Oct. 25, 1890; Ussher, "Birds of Ireland," p. 216.
- One, Killala Channel, co. Mayo, Jan. 18, 1897: Warren, *Field*, May 1, 1897; *Irish Nat.*, 1897, p. 59. In the Science and Art Museum, Dublin.

Obs. The late Dr. John Rae, the distinguished Arctic traveller, who was well acquainted with this bird, stated (*Field*, Mar. 18, 1876) that in Orkney the Surf Scoter, "although not common, is by no means rare. In the latter part of September or during October he had seen one or more every year for the last ten years in the large bay which separates Kirkwall from Firth and Rendall. They were always in the neighbourhood of, or in company with, the Velvet Scoter."

KING EIDER. *Somateria spectabilis* (Linnæus). Length, 24 in.; bill, 1.25 in.; wing, 11 in.; tarsus, 2 in.

Hab. Northern Europe and America, but more especially the Arctic regions.

One, Breydon Harbour, Norfolk, July 25, 1813: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 311; Southwell, *Trans. Norf. Nat. Soc.*, v. p. 58. Doubtful.

One (female), Aldeburgh, Suffolk, 1827: Acton, *Mag. Nat. Hist.*, vol. iv., 1831, p. 163; Jenyns, "Brit. Vert. An.," p. 238; Jesse's "Gleanings," 3rd series, p. 98.

One, Orkney, Nov. 1832: Gould, *Proc. Zool. Soc.*, 1832, p. 189; Baikie and Heddle, "Hist. Nat. Orcad.," p. 78.

One, Kingstown Harbour, Oct. 1, 1837: Thompson, *Ann. Nat. Hist.*, vol. v. p. 6; "Nat. Hist. Irel. (Birds)," vol. iii. p. 116; Ussher, "Birds of Ireland," p. 213.

One, Derrynane, co. Kerry, winter 1843: Thompson, *op. cit.* Proved to be a common Eider.

Occasionally met with in Shetland: Edmondston, *Zool.*, 1844, p. 463; Crotch, *Zool.*, 1861, p. 7343.

One, Tralee Bay, co. Kerry, winter 1845-46: Thompson, *op. cit.* A common Eider.

One, Wensdale Voe, near Hoy, Shetland, May 20, 1846: Dunn, *Zool.*, 1848, p. 2188.

One, Bridlington, Yorkshire, Aug. 1850: Duff, *Zool.*, 1851, p. 3036; Hancock, "Birds Northumb.," p. 159.

One, Belfast Bay, March 11, 1850: Thompson, *op. cit.* In the Belfast Museum.

One or more, Kyle of Tongue, Sutherland: St. John, "Tour in Sutherland," vol. i. p. 144.

One, Lowestoft, Jan. 7, 1854: Harper, *Nat.*, 1854, p. 165. It is doubtful whether this was not an Eider.

One seen in the Tyne estuary, winter 1847: Turnbull, "Birds of East Lothian," p. 45; Gray, "Birds of West of Scotland," p. 380.

Two, Orkney, May 1868 and Dec. 1869: Gray, *op. cit.* In the collection of the late Mr. Edward Hargitt.

- One, Leadenhall Market, Nov. 17, 1870: Gurney, *Zool.*, 1871, p. 2443. In the collection of Mr. J. H. Gurney.
- One (female), Maldon, Essex, 1875: *Field*, Nov. 6 and 20, and Dec. 11, 1875. Admitted to be a mistake.
- One, Orkney, March 1884: Buckley, p. 181.
- One young male, Hunstanton, Norfolk, Jan. 1888: Southwell, *Trans. Norf. Nat. Soc.*, v. p. 60 (1890). In the Norwich Museum.
- Two others, Nov. 3 and 15, 1890: *tom. cit.*, p. 205.
- One, Achill Island, co. Mayo, Dec. 12, 1892: More, *Irish Nat.*, 1893, p. 177; Ussher, "Birds of Ireland," p. 213.
- One, Farne Islands, Northumberland. In the collection of Mr. R. W. Chase.
- One, Lerwick, Feb. 25, 1899. A male received by me in the flesh. Measurements as above. Weight, 3 lbs. 14 oz. Exhibited at a meeting of the Linnean Society, March 2, 1899.

Obs. Bullock informed Col. Montagu that he had found this Duck breeding in Papa Westra, one of the Orkney islands, towards the latter end of June, but the statement lacks confirmation. In Baikie and Heddle's "Hist. Nat. Orcadensis" (1848) it is stated (p. 78) to be a rare occasional visitant to Orkney. See also Buckley, "Faun. Orkney," p. 181.

STELLER'S EIDER. *Somateria stelleri* (Pallas). Length, 18 in.; bill, 1·5 in.; wing, 8·5 in.; tarsus, 1·4 in.

Hab. Northern Europe; Northern and North-Eastern Asia; North-West America.

- One, Caister, near Yarmouth, Feb. 10, 1830: Paget, "Sketch of Nat. Hist. Yarm.," p. 11; Yarrell, *Mag. Nat. Hist.*, vol. iv. p. 117, figured; *Trans. Norf. Nat. Soc.*, iv. p. 427; Stevenson, "Birds of Norfolk," vol. iii. p. 192. In the Norwich Museum.

One, Filey, Yorkshire, Aug. 15, 1845 : Bell, *Zool.*, 1846, p. 1249 ; Yarrell, "Hist. Brit. Birds." Formerly in the possession of the late Mr. G. N. Curzon ; now in the collection of his brother, Lord Scarsdale, at Kedleston ; a male bird assuming winter plumage, as determined by Mr. Saunders.

Obs. This rare duck is the *Anas stelleri*, Pallas, "Spic. Zool.," vi. p. 35, pl. 5 (1766) ; *Anas dispar*, Sparrmann, "Mus. Carls.," tab. 7 (1786). Originally described from specimens brought by Steller from Kamtchatka, and called the Western Duck, from having been found on the Western Coast of North America. According to Professor Baird, however ("Birds N. Amer.," p. 802), the occurrence of this Duck in North America is "a matter of much uncertainty," no specimen actually taken in North America having come to his knowledge. Nevertheless he adds : "It appears to inhabit North-Eastern Asia, especially Kamtchatka and the Kurile Islands, and to extend thence into Northern and Western Europe. It doubtless visits the north-west coast of America, where it is said by Bonaparte to be abundant ; with what foundation I do not know." In *The Ibis*, 1872, p. 327, Mr. J. H. Gurney has noticed the fact of a pair having been obtained on Flaxman's Island, on the western Arctic Coast of North America. Four examples have been shot off Heligoland, and two in Denmark, while on the Baltic, according to Mr. Saunders, it is sometimes not uncommon. Nevertheless, it is the rarest duck which has ever visited the British Islands.

HOODED MERGANSER. *Mergus cucullatus*, Linnæus.

Length, 17·5 in.; bill, 1·5 in.; wing, 7·75 in.; tarsus, 1·4 in.

Hab. North America, Alaska and Greenland, south to Mexico and Cuba.

One, Yarmouth, winter 1829: Selby, *Trans. N. H. Soc. Northumb.*, vol. i. p. 292; *id.* "Ill. Brit. Orn.," vol. ii. p. 383; Paget, "Sketch of Nat. Hist. Yarmouth," p. 12. In the collection of the late Mr. Selby, who adds (*l.c.*):—"Since this capture I have been informed that more instances have occurred, all apparently females or young males in the garb of that sex."

One, Menai Straits, near Bangor, winter 1830-31: Eyton, "Hist. Rarer Brit. Birds," p. 75 and figure. In the collection of Mr. Eyton.

One, Burton Park, Petworth, Sussex: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 387. In the collection of the late Mr. Anthony Biddulph.

One, Stoke Nayland, Suffolk: Yarrell, *vide* Hoy, *op. cit.*

One, Dingle Bay, co. Kerry, winter 1840: Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 161. Doubtful.

One, Knockdrin, co. Meath: Watters, "Birds of Ireland," p. 215. Recorded on the authority of Glennon.

One, Caithness, prior to 1841: Sinclair, "Cat. Birds Caithness;" Shearer and Osborne, *Proc. Roy. Phys. Soc. Edinb.*, ii. p. 340; Gray, "Birds of W. Scotland," p. 398.

A pair near Leeds: Gould, "Birds of Great Britain;" Clarke, "Handb. Yorks. Vert.," p. 59. In collection of Mr. W. Christy Horsfall.

One, Somersetshire: Baker, *Somerset. Archæol. Proc.*, p. 146. Doubtful.

Three seen, Firth of Forth, May 5, 1853: Colquhoun, "Sporting Days," pp. 20, 21; *Ibis*, 1867, p. 239; Gray, "Birds of West of Scotland," p. 399.

Two, Sheerness, March 1870: Mathew, *Zool.*, 1870, p. 2182.

Two, Cork Harbour, Dec. 1878, in company with some Red-breasted Mergansers: Payne Gallwey, "Fowler in Ireland," p. 121.

One off Ballylongford, co. Kerry, Jan. 1881: Payne Gallwey, *op. cit.*; Ussher, "Birds of Ireland," p. 222.

ORDER XII. PYGOPODES

Fam. ALCIDÆ.

BRÜNNICH'S GUILLEMOT. *Uria brünnichii*, Sabine.
Length, 18 in.; bill, 1·75 in.; wing, 8·25 in.; tarsus, 1·5 in.

Hab. Northern Europe, Asia, and America.

One or more, coast of Kerry, July 1833: Sabine, in "Ainsworth's Deser. Caves of Ballybunian, Kerry;" Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 213.

One, Youghal, Feb. 1, 1850: Thompson, *op. cit.*

One, Caithness: Wilson, "Voyage round Scotland and the Isles," vol. ii. p. 179; Gray, "Birds of West of Scotland," p. 422. In the collection of Mr. Sinclair.

Several, Unst, Shetland: Macgillivray (*fide* Sir J. Ross), "Hist. Brit. Birds," vol. v. p. 316; Baikie and Heddle, "Hist. Nat. Orcad.," p. 86; Crotch, *Zool.*, 1861, p. 7343.

Several, Orkney: Macgillivray, *op. cit.*; Baikie and Heddle, *op. cit.*; R. Gray, *op. cit.*

One, Sutherlandshire: Sir W. Milner, "List of Birds of Sutherlandshire;" A. G. More, *Ibis*, 1865, p. 449.

One or more, with the eggs(?), St. Kilda, June 15, 1847: Sir W. Milner, *Zool.*, 1848, p. 2061.

One, coast of Banffshire: Edward, *Zool.*, 1860, p. 6971.

One or more, Farne Islands: *Zool.*, 1852, p. 3479.

One, Freshwater, Isle of Wight, Feb. 7, 1860: More, in "Venable's Guide to Isle of Wight," p. 434.

One, Rosemullion Head, Cornwall: Bullmore, "Cornish Fauna," p. 39; Rodd, "Birds of Cornwall," p. 159.

One, Dublin Coast: Blake Knox, *Zool.*, 1871, p. 2609.

One, North Bay, Scarborough, Dec. 7, 1894: Harting, *Zool.*, 1895, p. 70. Exhibited by me at meeting of Linnean Society, *Proc. Linn. Soc.*, Jan. 17, 1895.

Two, Filey, Yorkshire, Jan. 30, 1895: O. Grabham, *Zool.*, *loc. cit.*

One, Guyhirne, on the Nene, Cambridgeshire, Jan. 12, 1895; Tuck, *Zool.*, 1895, p. 70; Lilford, *Zool.*, 1895, p. 109; *Field*, Mar. 9, 1895.

One, mouth of the Orwell, Suffolk: Babington, "Birds of Suffolk," p. 246.

Obs. This bird breeds in Greenland beyond lat. 64°. Mr. Eaton reported it as breeding in thousands in Spitsbergen (*Zool.*, 1874, p. 3818), and Col. Feilden found a large colony on the cliffs of Saunderson's Hope (over 1000 feet in height) to the south of Upernavik; *Zool.*, 1878, p. 380. Mr. H. J. Pearson in his recently published volume, "Beyond Petsora Eastward," reproduces a striking photograph of Brünnich's Guillemot in one of its breeding haunts. The expanse of wing in one which I measured was 24½ in., another 26 in. Weight, 2 lbs. 10 oz.

ORDER XIV. GAVIÆ

Fam. LARIDÆ.

GULL-BILLED TERN. *Sterna anglica*, Montagu.
Length, 15 in.; bill, 1.75 in.; wing, 12.5 in.; tarsus, 1.5 in.

Hab. Central and Southern Europe, North Africa, India and Southern China, North and South America.

One, Sussex: Montagu, "Orn. Dict. Suppl.," 1813. Type in Montagu's collection in the British Museum. "Others have been killed about Rye" (*op. cit.*).

- One, Kent, June 1839: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 521.
- One near Leeds, July 1843: Denny, *Ann. Mag. Nat. Hist.*, 1843, p. 297; Clarke, "Handb. Yorks. Vert.," p. 80.
- One, Breydon, Yarmouth, April 14, 1849: Stevenson, "Birds of Norfolk," p. 307. In the Bury Museum.
- Three, Yarmouth, July and Sept. 1849: Gurney, *Zool.*, 1849, pp. 2569, 2592, and 2653.
- One, Yarmouth, May 24, 1850: Gurney, *Zool.*, 1850, p. 2854. In the collection of Mr. J. H. Gurney.
- One, Yarmouth, July 1851: Gurney, *Zool.*, 1851, p. 3235. In the collection of Rev. H. T. Frere.
- One, Norfolk. In the Wisbeach Museum.
- One, Rye Harbour, Sussex: Knox, "Orn. Rambles in Sussex," p. 253. Probably quoted from Montagu.
- One, Selsea, Sussex, March 31, 1852: Knox, *op. cit.*
- One, Trescoe Abbey, Scilly, May 1852: Rodd, *Zool.*, 1852, and "Birds of Cornwall," p. 166.
- Two, Barnstaple, autumn 1859: Mathew, *Zool.*, 1859, p. 6762, and "Birds of Devon," p. 364.
- One, Plymouth, autumn 1866: Gatcombe, *Zool.*, 1867, p. 557.
- One near Christchurch, Hants, May 14, 1872: Von Hügel, *Zool.*, 1872, p. 3149.
- One, St. Just, near Penzance, Cornwall, July 1872: Rodd, *Zool.*, 1872, p. 3188; and "Birds of Cornwall," p. 166.
- One, Brighton, shot by the late Rev. W. Rice of South Hill. Seen by Rodd in a collection at Penzance. Rodd, "List," 2nd ed., p. 42.
- One, Hunstanton, Norfolk, July 1878: Julian Tuck, *Zool.*, 1888, p. 351. In the collection of Dr. Whitty.
- One reported to have been shot on Belfast Lough, Sept. 1887: R. O. Cunningham, *Zool.*, 1887, p. 433; proved to be the Arctic Tern: Saunders, *Zool.*, 1890, p. 270.

Obs. Mr. Saunders regards this species as occupying a position between the Marsh Terns and the typical Sea Terns. The toes are almost as fully webbed as

in the Sea Terns, while the tail is short and the lateral feathers are slightly rounded, though more pointed than in the Marsh Terns. The bill is remarkably robust and the tarsus proportionately longer than in any other species. Both Selby and Audubon compared specimens of the Marsh Tern of North America, *S. aranea*, Wilson, with Montagu's type of *S. anglica* in the British Museum, and agreed in considering them identical. The geographical range of this species, therefore, is very considerable.

CASPIAN TERN. *Sterna caspia*, Pallas. Length, 20 in.; bill, 3.25 in.; wing, 16.5 in.; tarsus, 1.6 in.

Hab. Europe, Western Asia, North Africa.

One, Breydon Harbour, Oct. 4, 1825: *Mag. Nat. Hist.*, vol. iv. p. 117; Paget, "Sketch Nat. Hist. Yarmouth," p. 12; Babington, "Birds of Suffolk," p. 247.

One near Caister, Norfolk, 1830: Paget, *op. cit.*; *Zool.*, 1856, p. 5035. In the Norwich Museum.

Three or four seen, one shot, near Aldeburgh, Suffolk, prior to 1835: Jenyns, "Brit. Vert. An.," p. 265. In the Cambridge Museum.

One, Cromer, 1836; Gurney, *Zool.*, 1887, p. 457.

One, Norfolk coast, April 16, 1839: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 498; Gurney, *Zool.*, 1887, p. 457. In the collection of Mr. Gurney.

One, Lydd, Kent, prior to 1845: Thompson, "Notebook of a Naturalist," p. 265.

Two, Weymouth, autumn 1848: Mansell-Pleydell, "Birds of Dorset," p. 103.

One, Breydon Harbour, Yarmouth, June 9, 1849: Burton, *Zool.*, 1849, p. 2499; Smith, *tom. cit.*, p. 2529; Yarrell, *op. cit.* In the possession of Capt. Barber.

One, same harbour, June 1850. In the Bury Museum.

One, perhaps the same, July 16, 1850: Gurney, *Zool.*, 1850, p. 2915. Two or three others seen.

One, Norfolk coast, Aug. 11, 1851: Gurney, *Zool.*, 1851, p. 3235; Harper, *Nat.*, 1852, p. 128. In the collection of Mr. Gurney.

One, Caythorpe, Lincolnshire, May 17, 1853: Footit, *Zool.*, 1853, p. 3946; Yarrell, *op. cit.*

One near Yarmouth, May 2, 1862: Stevenson, *Zool.*, 1862, p. 8093; and "Birds of Norfolk," vol. iii. p. 296.

One, Christchurch Harbour, Hants, 1853: Wise, "New Forest," p. 317; Gurney, *Zool.*, 1869, p. 1512.

One, Poole Harbour, 1869: Mansell-Pleydell, *l.c.* In the collection of Mr. E. Hart.

One, Wareham, Dorset, July 1872: Mansell-Pleydell, "Birds of Dorset," p. 103.

One, Filey, Yorkshire, Sept. 1874: Willis, *Field*, Nov. 15, 1879. Identified by Prof. Newton.

One seen Farne Islands, June 6, 1880; Bidwell, *Zool.*, 1887, p. 458. Identified by its large red bill.

Obs. See Gurney "On the Occurrence in England of the Caspian Tern," *Zool.*, 1887, p. 457.

SOOTY TERN. *Sterna fuliginosa*, Gmelin. Length, 17 in.; bill, 2 in.; wing, 11.75 in.; tarsus, 0.9 in.

Hab. West India Islands, Central America, South Sea Islands, and Australia. Also Ascension Island, where it breeds in some numbers.¹

One, Tutbury, near Burton-on-Trent, Oct. 1852: Brown, *Zool.*, 1853, p. 3755; Sir Oswald Moseley, "Nat. Hist. Tutbury," p. 110. In the collection of Mr. H. W. Desvœux, of Drakelow Hall; exhibited by Yarrell at a meeting of the Linnean Society in Feb. 1853.

¹ For a description of this breeding-place, cf. Sperling, *Ibis*, 1868, pp. 286-288.

One, Scalby, near Scarborough, 1863: Clarke and Roebuck, "Handbook Yorks. Vert.," p. 80. In the collection of Mr. Edward Tindall.

One on the Thames, near Wallingford, Berks, June 21, 1869: Harting, *Field*, June 26, 1869; *Zool.*, 1869, p. 1867. In the possession of Mr. Franklyn. This bird was brought to me to be named shortly after it was killed, and before it was skinned.

One on the estuary of the Axe, near Axminster: Rev. J. B. Selwood, *Field*, July 17, 1869. It is doubtful whether this may not have been *Hydrochelidon nigra*. The death of Mr. Selwood unfortunately prevented a solution of the doubt.

One near Bath, Oct. 1885: Identified by the late Rev. L. Blomefield; Saunders' "Manual," 2nd ed., p. 653.

Obs. Other birds recorded under this name proved to be Black Terns (Saunders, *l.c.*). The Lesser Sooty Tern (*Sterna anæsthes*), Scopoli, a native of the West Indies, West and East Africa, the Indian Ocean, New Guinea, and Northern Australia, has been reported to have been obtained at the mouth of the Thames in Sept. 1875 (*Zool.*, 1877, p. 213). But according to Mr. Saunders ("Manual," p. 654), "the evidence is slightly imperfect." The measurements may be given for the sake of comparison with those of *Sterna fuliginosa* as follows:—Length, 14·5 in.; bill, 1·75 in.; wing, 10 in.; and tarsus, 0·8 in.

NODDY TERN. *Sterna stolidus* (Linnæus). Length, 16 in.; bill, 2 in.; wing, 10·25 in.; tarsus, 1 in.

Hab. Central America, West India Islands, South Sea Islands, and Australia.

Two between Wexford and Dublin, 1830: Thompson, *Trans. Linn. Soc.*, 1835; "Nat. Hist. Irel. (Birds)," vol. iii. p. 308.

One, co. Dublin: Blake Knox, *Zool.*, 1866, p. 306.

One on the Dee Marshes, Cheshire, 1891: Congreve, *Zool.*, 1897, p. 510; Coward and Oldham, "Birds of Cheshire," p. 229.

Obs. The occurrence of this bird in the British Islands, even as a rare straggler, is extremely doubtful, and it is only included here in view of the above-mentioned records, which it has not been possible to verify. It has been recorded as "a summer visitant to St. George's Channel" (Austin, *Ann. Nat. Hist.*, vol. ix. p. 435); but doubtless *Hydrochelidon nigra* is the species intended.

WHITE-WINGED BLACK TERN. *Hydrochelidon leucoptera*, Schinz. Length, 9.25 in.; bill, 1 in.; wing, 8.25 in.; tarsus, 0.75.

Hab. Central and Southern Europe in summer; wintering in Africa, Australia, and New Zealand.

One on the Shannon, 1841: M'Coy, *Ann. Nat. Hist.*, vol. xv. p. 271. In the Dublin Museum. Thompson says ("Nat. Hist. Irel. (Birds)," vol. iii. p. 307) that this bird was shot by Mr. John Hill, not on the Shannon, but on the Liffey, near the Pigeon-house Fort, Dublin Bay, in October 1841.

One, Dublin Bay: Thompson, *op. cit.*; Blake Knox, *Zool.*, 1866, p. 306.

One, Horsey Mere, Norfolk, May 17, 1853: Yarrell, *Zool.*, 1853, p. 3911; Stevenson, vol. iii. p. 316.

Two, Coventry, June 1857: Gould, "Birds of Great Brit."

One, Hickling Broad, Norfolk, June 27, 1867: Stevenson, *Zool.*, 1867, p. 951; "Birds of Norfolk," iii. p. 317.

- One, Ilfracombe Harbour, Nov. 1870: Saunders, "Manual," 2nd ed., p. 635. In the collection of Mr. Westlake, of Ilfracombe.
- Four, Breydon Harbour, Yarmouth, May 26, 1871: Stevenson, *Zool.*, 1871, p. 2830, and "Birds of Norfolk," vol. iii. p. 317.
- One, South Weighton, near Newhaven, Sussex, May 1873: Colgate, *Field*, Nov. 13, 1875.
- Five, Yarmouth, Norfolk, May 30, 1873. In the collection of the late Mr. E. T. Booth, of Brighton.
- One in co. Limerick, spring 1875: Williams, *Field*, June 5, 1875; Ussher, "Birds of Ireland," p. 313.
- One, Christchurch Harbour, Hants. In the collection of Sir V. Crewe, at Calke Abbey, Derby.
- One, Scilly Isles, May 1882: Cornish, *Zool.*, 1882, p. 235.
- One, Hickling Broad, June 10, 1883: Stevenson, "Birds of Norfolk," iii. p. 318. In the collection of Mr. R. Chase, of Edgbaston.
- One, Breydon Harbour, Norfolk, June 1888: Stevenson, *loc. cit.* In the possession of Mr. Spelman, of Brundall, Norfolk.
- Five seen at Britford, Salisbury, April 30, 1889: Morres, *Zool.*, 1889, p. 393.

Obs. Like the Black Tern, this is a marsh-haunting species, and in Central Europe the two are sometimes found nesting in company.

WHISKERED TERN. *Hydrochelidon hybrida*, Pallas.
Length, 11 in.; bill, 1.4 in.; wing, 9.25 in.; tarsus, 0.9 in.

Hab. Southern Europe, India, and North Africa.

- One, Lyme Regis, Dorsetshire, Aug. 1836: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 517.
- One, mouth of the Liffey, Sept. 1839: Thompson, *Ann. Mag. Nat. Hist.*, vol. xx. p. 170; *Zool.*, 1847, p. 1878; "Nat. Hist. Irel. (Birds)," vol. iii. p. 298; Blake Knox,

Zool., 1866, p. 306; Ussher, "Birds of Ireland," p. 314.

In the Museum of Science and Art, Dublin.

One on the river Swale, near Hornby Castle, Yorkshire, 1842: Saunders, "Manual," p. 637.

One, Hickling Broad, Norfolk, June 17, 1847; Gurney and Fisher, *Zool.*, 1847, p. 1820; Stevenson, "Birds of Norfolk," iii. p. 306. In the collection of Mr. J. H. Gurney.

One near Trescoe Abbey, Cornwall, Aug. 1851; Rodd, *Zool.*, 1851, p. 3280; and "Birds of Cornwall," p. 165.

One near Plymouth, May, 1865: Gatecombe, *Zool.*, 1865, p. 9629; D'Urban and Mathew, "Birds of Devon," p. 366. In the British Museum.

One, Barrow-on-Trent, autumn 1883: Whitlock, "Birds of Derbyshire," p. 218. In the collection of Sir Vauncey Crewe, at Calke Abbey.

One, Christchurch, Hants, June 1875. In the collection of Mr. E. Hart, of Christchurch.

One, Dersingham, Norfolk, Oct. 1890: Southwell, *Trans. Norf. Nat. Soc.*, vol. v. p. 205.

One, near the Carse Loch, eight miles from Dumfries, May 28, 1894: Service, *Zool.*, 1894, p. 268. In the Museum of Science and Art, Edinburgh.

Obs. Some interesting particulars with regard to the nidification of this species as observed in India by the late Mr. A. Anderson will be found in *The Ibis*, 1872, pp. 81-83. According to Mr. Saunders, large numbers arrive by the middle of April to breed in the marshes of the south-west of Spain, and in Italy this bird is well known on passage. Colonies have also been found nesting in the swamps of the Danube, as well as in Turkey, Greece, and Southern Russia.

SABINE'S GULL. *Xema sabinii* (Sabine). Length, 13·5 in.; bill, 1·3 in.; wing, 10·25 in.; tarsus, 1·5 in.

Hab. Enters the circumpolar regions in summer, going southward in winter.

One, Belfast Bay, Sept. 18, 1822: Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 309.

One, Belfast Bay, Sept. 15, 1834: Thompson, *op. cit.*

One, Dublin Bay, Sept. 12, 1837: Thompson, *op. cit.*

One, Milford Haven, autumn 1839: Yarrell, "Brit. Birds."

Two, Torbay, Devon, Oct. 1844: Hore, *Zool.*, 1845, p. 879.

One, Cambridgeshire: Yarrell, *op. cit.*

One, Newhaven, Sussex, Oct. 22, 1853: Borrer, *Zool.*, 1853, p. 4408; Knox, "Ornithological Rambles in Sussex."

One, Brighton, Oct. 16, 1856: Rowley, *Field*, Jan. 13, 1877; Borrer, "Birds of Sussex," p. 261.

One, Hove, Brighton, Oct. 7, 1858: Dawson Rowley, *Zool.*, 1859, p. 6331; Borrer, *op. cit.*

One, Banffshire coast: Edward, *Zool.*, 1860, p. 6974.

One, Balta Sound, Shetland: Saxby, *Zool.*, 1861, p. 7436.

One, Dublin Bay, Nov. 1861: Blake Knox, *Zool.*, 1862, p. 8093; Ussher, "Birds of Ireland," p. 328.

One on the Thames, near Blackwall, Sept. 1862: Harting, "Birds of Middlesex," p. 251.

One, Weston-super-Mare: Mathew, *Zool.*, 1863, p. 8692, and 1865, p. 9470; "Birds of Somerset," p. 580.

One, Mounts Bay, Cornwall, Sept. 1866: Rodd, *Zool.*, 1866, p. 501, and "Birds of Cornwall," p. 167.

One, Bridlington, Yorkshire, Sept. 5, 1866: Boulton, *Zool.*, 1867, p. 543; Clarke and Roebuck, "Yorks. Vert.," p. 81.

One, Kingstown Harbour, Sept. 28, 1866: Blake Knox, *Zool.*, 1866, p. 526; Ussher, "Birds of Ireland," p. 328.

One, same place, Sept. 18, 1867: Blake Knox, *Zool.*, 1868, p. 1099; Ussher, *op. cit.*

One, Plymouth Sound, autumn 1866: Gatecombe, *Zool.*, 1867, p. 557; D'Urban and Mathew, p. 387.

- One, Weston-super-Mare, Sept. 14, 1867: Mathew, *Zool.*, 1867, p. 992; "Birds of Somerset," p. 580.
- One, Bangor, co. Down, Oct. 1867: Blake Knox, *Zool.*, 1868, p. 1099; Ussher, *op. cit.*
- One, Eastbourne, Oct. 10, 1870: J. H. Gurney, jun., MS.
- One, Brighton, Oct. 7, 1871: Rowley, *Field*, Jan. 13, 1877.
- One, Bridlington, Yorkshire, Aug. 10, 1872: Gurney, *Zool.*, 1872, p. 3316; Clarke and Roebuck, *op. cit.* In full summer plumage.
- One, Flamborough, Oct. 15, 1873: Clarke and Roebuck, *op. cit.* In the collection of Mr. J. H. Gurney.
- One, Nobold, near Shrewsbury, Oct. 26, 1874: Rocke, *Zool.*, 1875, p. 4300.
- One, Bridlington, Oct. 14, 1875: Clarke and Roebuck, *op. cit.* In the collection of Mr. Whitaker.
- One, Brighton, Dec. 18, 1876: Rowley, *Field*, Jan. 13, 1877; Borrer, "Birds of Sussex," p. 261.
- One, coast of Donegal, Sept. 17, 1878: Williams, *Zool.*, 1878, p. 437; Ussher, "Birds of Ireland," p. 328.
- One, Scarborough, Nov. 7, 1878: Roberts, *Zool.*, 1878, p. 455; Clarke and Roebuck, p. 81.
- One, Scarborough, Nov. 1879: Clarke and Roebuck, *op. cit.*
- Two, Yarmouth, Oct. 1881: Stevenson, *Zool.*, 1882, p. 111; 1883, p. 319; *Trans. Norf. Nat. Soc.*, iii. p. 373.
- One, Dublin Bay, Sept. 24, 1881: More, *Zool.*, 1881, p. 472.
- One, Clontarf, Nov. 5, 1884: Dowling, *Zool.*, 1884, p. 490.
- One, Palling, Norfolk, Oct. 6, 1889: Stevenson, "Birds of Norfolk, vol. iii. p. 319.
- Several off Flamborough, Sept. and Oct. 1889-90: Cordeaux, *Nat.*, 1889, p. 333; 1890, pp. 318, 354.
- One, Newlyn, near Penzance, same time. Cornish, *Zool.*, 1892, p. 22. Exhibited by me at a meeting of the Linnean Society, Dec. 4, 1890.
- One near Bournemouth, Oct. 13, 1891: Coburn, *Zool.*, 1892, p. 22.
- One in Mid-Wales, Oct. 17, 1891: Salter, *Zool.*, 1895, p. 250. In the collection of Sir Vauncey Crewe.

- One, Wells, Norfolk, Oct. 1892: Weldon, *Zool.*, 1892, p. 423.
 One, Amroth, Pembrokeshire, Nov. 12, 1892: Jeffreys, *Zool.*, 1892, p. 423; "Birds of Pembrokeshire," p. 107.
 One, Rockcliff Marsh, Cumberland, Sept. 30, 1893: Macpherson, *Zool.*, 1893, p. 429.
 One near Burnham, Somerset, Oct. 11, 1893: Goldsmith, *Zool.*, 1896, p. 234.
 One, Weymouth, Nov. 1893: Macpherson, *Zool.*, 1896, p. 23.
 One, Wolfe Rock, Cornwall, Sept. 1894: Thorburn, *Zool.*, 1896, p. 476.
 One, Wells, Norfolk, Oct. 1895: Gurney, *Zool.*, 1896, p. 177.
 Six, Aberystwith, Sept. 24-26, 1896: Salter, *Zool.*, 1896, p. 385.
 One, Tickenham, near Clevedon, Somerset, Sept. 24, 1896.
 One, Cley, Norfolk, Oct. 12, 1896: Gurney, *Zool.*, 1897, p. 134; *Trans. Norf. Nat. Soc.*, vol. v. p. 421.

Obs. This Gull, named after Sir Edward Sabine, who found it nesting in lat. $75^{\circ} 29'$ on the west side of Greenland, breeds throughout the Arctic regions of America from Baffin Bay to Alaska. Thence, according to Mr. Saunders, it can be traced across the high latitudes of Eastern Siberia as far as the Taimyr Peninsula, where Middendorf obtained its eggs. A fine pair in breeding plumage (with slate-coloured head and black collar) may be seen in the Oxford Museum. They were obtained by Captain Collinson of H.M.S. *Enterprise* off Melville Peninsula, *Proc. Zool. Soc.*, 1871, p. 111. As the Gull-billed Tern approaches the Gulls in the form of the bill, so Sabine's Gull approximates to the Terns in regard to its long and forked tail, a feature which distinguishes it at all ages and in any plumage from all other Gulls of its size. It is comparatively a small

bird, inferior in size to the common Black-headed Gull, but in the breeding plumage resembles it in having a dark hood.

MEDITERRANEAN BLACK-HEADED GULL. *Larus melanocephalus*, Natterer. Length, 15·5 in.; bill, 1·75 in.; wing, 11·75 in.; tarsus, 1·9 in.

Hab. The Mediterranean coasts of Spain, Portugal, and South-Western France.

One on the Thames, near Barking Creek, Jan. 1866: Saunders, *Ibis*, 1872, p. 79. In the British Museum.

One, Breydon Harbour, Yarmouth, Dec. 26, 1886: Smith, *Zool.*, 1887, p. 69. Exhibited by Mr. Saunders at a meeting of the Zoological Society, Jan. 18, 1887.

Obs. The Masked Gull, *Larus capistratus*, Temm., which was treated as a distinct species by Eyton, Jenyns, Yarrell, and other authors, would be here inserted as a rare or accidental visitant, were there any good grounds for believing it to be a valid species. But there can be little doubt that the name *capistratus* was bestowed upon a small specimen of *L. ridibundus* in a transitional phase of plumage; cf. Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. pp. 334-340.

GREAT BLACK-HEADED GULL. *Larus ichthyaëtus*, Pallas. Length, 26 in.; bill, 3·25 in.; wing, 19 in.; tarsus, 3·3 in.

Hab. South-Eastern Europe; Egypt; Palestine; India.

One, Exmouth, May 1859: Ross, *Ann. Mag. Nat. Hist.*, Dec. 1859, p. 467; *Zool.*, 1860, p. 6860. In the Albert Memorial, Exeter Museum.

Obs. I examined this bird on Sept. 22, 1870, and on Jan. 22, 1873, received a circumstantial account of its capture from Mr. W. Taylor, of Edgbaston, who was in the boat with the fisherman who shot it.

BONAPARTE'S GULL. *Larus philadelphia*, Ord. Length, 14 in.; bill, 1·25 in.; wing, 10·25 in.; tarsus, 1·4 in.

Hab. North America, breeding in the Fur Countries and migrating southward for the winter.

One on the Lagan, near Belfast, Feb. 1, 1848: Thompson, *Ann. Nat. Hist.*, 1848, p. 192; *Zool.*, 1849, p. 2069. Examined in the flesh by Thompson, and preserved in the Belfast Museum.

One on Loch Lomond, April 1850: Sir G. Leith, *Zool.*, 1851, p. 3117, and 1867, p. 966.

One on one of the English Lakes: Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 555. Doubtful.

One off Skerries, co. Dublin, Feb. 14, 1855: Hon. T. L. Powys, *Zool.*, 1855, p. 4762.

One, Dublin Bay, July 1864: Blake Knox, *Zool.*, 1866, p. 306.

One, Falmouth Harbour, Jan. 4, 1865: Rodd, *Zool.*, 1865, p. 9501. In the collection of the late Mr. Couch.

One near Penryn, Cornwall, Jan. 10, 1865: Rodd, "Birds of Cornwall," p. 168; Bullmore, "Cornish Fauna," p. 42.

One, St. Leonards, Sussex, Nov. 1870: Cecil Smith, *Zool.*, 1883, p. 120; Borrer, "Birds of Sussex," p. 262.

One, Newlyn, near Penzance, Cornwall, Oct. 24, 1890: Harting, *Zool.*, 1891, p. 35. A young bird sent to me for identification by T. H. Cornish, of Penzance; exhibited at a meeting of the Linnean Society, Dec. 4, 1890. Expanse of wing, 29 in.; weight, 7 oz.

Obs. For remarks on the distinguishing characters of this species, see Saunders on the *Laridæ*,

Proc. Zool. Soc., 1878, pp. 206–207, and “Cat. Birds Brit. Mus.,” xxv. p. 187; Cecil Smith, *Zool.*, 1883, p. 120.

ROSS'S GULL. *Rhodostethia rossii*, Richardson. Length, 13·5 in.; bill, 1 in.; wing, 10·25 in.; tarsus, 1·25 in.

Hab. Arctic regions.

One, Milford-cum-Kirby, Yorkshire, Feb. 1874: Charlesworth, *Proc. York Phil. Soc.*, vol. i. p. 33; *Zool.*, 1847, p. 1782; and Sir W. Milner, *tom. cit.*, p. 1694. But these accounts differ as to locality and date of capture. In the collection of the late Sir W. Milner.

Obs. This Gull, named after Sir James Clark Ross, who discovered it on Melville Peninsula in June 1823, and known also as the “Rosy Gull” from the rose pink colour of the underparts, and the “Wedge-tailed Gull” from another peculiarity, is a typical Arctic circumpolar bird. It reaches a latitude attained by few other species, and specimens met with outside the Arctic Circle can only be regarded as wanderers. No one has explained what could become of the numbers seen by Murdoch to pass Point Barrow in the autumn, and less is known of the winter home of this gull than of the region where it breeds. Nansen saw flocks of this species on August 6 in lat. $81^{\circ} 38'$, E. long. 63° , near four small islands which he called Hirtenland, N.E. of Franz Josef Land; and though he did not actually find the nests, the birds were probably breeding not far away. Von Payer met with Ross's Gull between Novaya Zemlya and Franz Josef

Land only a few degrees south of the islands where Nansen found it.

The example above recorded, as obtained more than fifty years ago in Yorkshire, is the only one reported to have been met with in the British Islands, and it is not unlikely that the well-known credulity of Sir William Milner, who purchased it as "British," may have been imposed upon in this as in other instances by those having designs upon his purse.

Macgillivray has stated that "this species has once occurred in *Ireland*" ("Man. Brit. Orn.," ii. p. 254), but no evidence has ever been produced to support the statement.

IVORY GULL. *Pagophila eburnea* (Phipps). Length, 18 in.; bill, 1.75 in.; wing, 13.25 in.; tarsus, 1.5 in.

Hab. Coasts of Arctic America, Labrador, and Newfoundland.

One, Balta Sound, Shetland, Dec. 1822: Edmondston, *Mem.*

Wern. Nat. Hist. Soc., vol. iv. p. 501.

One, Firth of Clyde: Selby, "Ill. Brit. Orn.," vol. ii. p. 497.

One, west coast of Ireland: Ross, Appendix to his Second Voyage, p. 35.

One near Tralee, co. Kerry, Jan. 1835: Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 347.

One, Hartlepool, Durham, March 1837: Hogg, "Cat. Birds S.E. Durham," p. 39.

One, Cowpen Marsh, Durham: Hogg, *l.c.*

One, Blennerville, co. Kerry, Feb. 1846: Thompson, *op. cit.*

One, Wrenningham, Norfolk: Gurney, *Zool.*, 1847, p. 1384.

One, Banff, Jan. 29, 1847: Edward, *Zool.*, 1860, p. 6974.

Three seen, one shot, Dingle Bay, co. Kerry, Feb. 1847: Thompson, *op. cit.*

- One, Pier Head, Penzance, Feb. 15, 1847: Rodd, *Zool.*, 1847, p. 1699; "Birds of Cornwall," p. 170.
- One, Quilquay, near Falmouth, Feb. 1847: Bullmore, "Cornish Fauna," p. 43.
- Several in Orkney in 1822, 1832, and 1849: W. Reid, of Wick, *Zool.*, 1886, p. 109.
- One near Scarborough: Yarrell, "Hist. Brit. Birds," and Cordeaux, "Birds of Humber District," p. 203.
- Three, Brighton and Rye Harbour, Sussex, winter 1848: Knox, "Ornithological Rambles in Sussex," p. 255.
- Two, Glengariff Harbour, Jan. 1849, and Achill Island, co. Mayo: Thompson, *op. cit.*
- One, Bantry Bay, Jan. 31, 1852. In the Museum of Queen's College, Cork.
- One near Torquay, Jan. 18, 1853: Burt, *Zool.*, 1853, p. 3807; Yarrell, *op. cit.*
- One, Thrumster, Caithness, Nov. 1854: Gray, "Birds of West of Scotland," p. 481.
- One near Greenock, on the Clyde, winter 1858: Gray, *l.c.*
- One, Gardenstown, Banff, Dec. 1860: Edward, *Zool.*, 1861, p. 7387. In the Banff Museum.
- One, Shetland, winter 1863: Saxby, *Zool.*, 1864, p. 9094.
- One, Weston-super-Mare, 1864: Mathew, *Zool.*, 1865, p. 9470.
- One, Campbelltown, Kintyre, Feb. 1867: Gray, *op. cit.*
- Two, Islay, Feb. 1867, and Melsetter, Orkney, May 1867: Gray, *op. cit.*
- One, Filey Bay, Aug. 1875: Tuck, *Zool.*, 1875, p. 4689; and 1876, p. 4960.
- One, Filey, Sept. 1880: Backhouse, *Zool.*, 1881, p. 108.
- One, Redcar, Nov. 1880: Nelson, *Zool.*, 1881, p. 25.
- One, Cleethorpe, Lincolnshire, March 31, 1883: Fisher, *Zool.*, 1883, p. 258.
- One, Bishops Castle, Thurso, Caithness, Dec. 30, 1885: Millais, *Zool.*, 1886, p. 109.
- One on the Liffey, near Dublin, April 19, 1892: Waddilove, *Zool.*, 1892, p. 228. An unusual date for a winter visitor.

ORDER XV. TUBINARES

Fam. PROCELLARIIDÆ.

LITTLE DUSKY SHEARWATER. *Puffinus assimilis*,
Gould. Length, 10·5 in.; bill, 1·4 in.; wing, 7·4 in.;
tarsus, 1·5 in.

Hab. West Coast of Africa to Cape of Good Hope;
breeding in Madeira, Canaries, and Cape Verde Isles.

One, Valentia Harbour, co. Kerry, May 11, 1853. Originally described as "the Dusky Petrel, *Puffinus obscurus*," Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 659. Formerly in possession of Mr. Blackburn; since presented by him to the Science and Art Museum, Dublin.

One, Earsham, near Bungay, Suffolk, April 10, 1858. Picked up dead after a gale. Originally described as *P. obscurus*, Stevenson, *Zool.*, 1858, p. 6096; *Trans. Norf. Nat. Soc.*, vol. iii. p. 467, that name being retained by Mr. Southwell in the 3rd vol. of Stevenson's "Birds of Norfolk," p. 367, which he completed in 1890, as also in his "List of Norfolk Birds," *Trans. Norf. Nat. Soc.*, vol. iv. p. 413. In 1882, however, at a meeting of the Zoological Society in May 16, this specimen was exhibited by the late Mr. Osbert Salvin, in whose opinion, confirmed by that of Mr. Saunders, it was decided to be *Puffinus assimilis*, Gould. It is preserved in the collection of birds at Earsham Hall, and has been figured as a frontispiece to Messrs. Galpin and Candler's "Account of the Plants and Birds of Harleston, Norfolk," 1888.

Obs. This small Shearwater is about two-thirds the size of *P. anglorum*. It has the bill black, and the legs and toes black with yellow webs.

The larger species, *obscurus*, Gmelin, for which (as above shown) it has been more than once mistaken, is not known with certainty to have been obtained in British waters. It may be noted that in *assimilis* the undertail coverts are pure white; in *obscurus* they are described by Salvin as "blackish-brown tipped with white, the shorter central feathers white." In the colour of the bill and legs there is not much difference between the species.

SOOTY SHEARWATER. *Puffinus griseus* (Gmelin).

Length, 18 in.; bill, 2 in.; wing 12 in.; tarsus, 2·4 in.

Hab. Generally distributed over the Atlantic and Pacific Oceans, but, so far as at present known, breeding only in the Southern Hemisphere.

One off the Little Skellig rock, co. Kerry, Aug. 1853: Andrews, *Proc. Dubl. Nat. Hist. Soc.*, 1853, p. 76; More, *Zool.*, 1881, p. 334. In the collection at Chute Hall, near Tralee. Ussher, "Birds of Ireland," p. 391.

One off Bangor, co. Down, Sept. 29, 1869: Ussher, *op. cit.* In the collection of Mr. Lloyd Patterson of Belfast.

One or more, Mount's Bay, Cornwall: Rodd, "Birds of Cornwall," pp. 181, 212.

Others in Falmouth Harbour: Couch, "Cornish Fauna," described as the Cinereous Shearwater.

Two, Plymouth Sound: D'Urban and Mathew, "Birds of Devon," p. 406.

One, Poole Harbour, Dorsetshire, June 1877: Mansel Pleydell, "Birds of Dorset," p. 113.

One picked up dead after a gale at Seaford, Sussex, July 1850: Borrer, "Birds of Sussex," p. 282.

One shot off Hastings, Sept. 3, 1890: Borrer, *op. cit.* In his collection.

One, mouth of the Ouse, near Lynn, July 25, 1851; preserved in the Lynn Museum; originally recorded as

- the Greater Shearwater (*Puffinus cinereus*), (*Zool.*, 1851, p. 3234), but the mistake was subsequently corrected; see Southwell, *Zool.*, 1883, p. 179; *Trans. Norf. Nat. Soc.*, vol. iii. p. 474; and "Birds of Norfolk," vol. iii. p. 364.
- Three off Flamborough Head, autumn 1866: Clarke and Roebuck, "Handbook Yorks. Vert.," p. 86.
- One off Scarborough, autumn, 1879, *vide* Col. H. W. Feilden. In the possession of Sir Wm. Feilden, who shot it.
- One off Flamborough Head, Aug. 27, 1887: Harper, *Zool.*, 1887, p. 430.
- Several off the coasts of Kerry, Cork, and Waterford, Sept. 1900: Ussher, *Irish Nat.*, 1901, p. 42.

Obs. This bird, somewhat larger than *P. anglorum*, and smaller than *P. major*, is doubtless often mistaken for the young of the latter, as, for example, by so good an observer as the late Mr. Cordeaux. (See Clarke and Roebuck, "Handbook Yorks. Vert.," p. 86.) To judge from the few records of its capture in British seas, although it has not occurred often enough, nor in sufficient numbers, to entitle it to a place in the first part of this "Handbook," there is, nevertheless, reason to believe that it will be found to be a regular visitor in autumn to the south coast of Ireland and the English Channel. Referring to this bird, I wrote in 1872: "I have seen two or three specimens of a Shearwater taken on different parts of the English coast, intermediate in size between *P. major* and *P. anglorum*, and I have little doubt that a careful examination of these would result in the establishment of a fourth species of *Puffinus* in the British list." *P. fuliginosus*, Strickland (*Proc. Zool. Soc.*, 1832, p. 129), is the young of *P. griseus*,

and *P. stricklandi* of Ridgway and other American writers is the same bird. In *P. griseus* the bill is described as horn colour; tarsi and toes dark hazel; under wing coverts greyish-white, each feather with a dark shaft. The colour of the mantle in all the Shearwaters is very similar, being of a uniform sooty-brown or slaty-black hue, varying in intensity probably according to age and season.

CAPPED PETREL. *Æstrelata hæsitata* (Kuhl). Length, 16 in.; bill, 1.75 in.; wing, 11.25 in.; tarsus, 1.5 in.

Hab. Atlantic coast, from Florida to New York, and the West Indies.

One, Southacre, near Swaffham, spring 1850: Newton, *Zool.*, 1852, p. 3691, figure; Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 643, figure; Stevenson, "Birds of Norfolk," vol. iii. p. 361, coloured plate by Wolf.

Obs. A specimen of this Petrel, said to have been killed in the English Channel, is preserved in the Museum at Boulogne-sur-Mer.

This is the *Diablotin* of the French Creoles of Guadeloupe and Dominica, as shown by Col. Feilden, who has published a most interesting account of its "deserted domicile" in the latter island (*Trans. Norf. Nat. Soc.*, vol. v. p. 24). According to the earliest printed notice of this bird in the French Antilles by Père du Tertre (1666-71), "Hist. Gen. des Antilles," ii. p. 257, it is said to have been named *Diable à cause de sa laideur*, or, as Ober has it, "from its uncommonly ugly appearance" ("Camps in the Caribbees," 1880, p. 141). An excellent coloured

figure of it by Wolf is given in the third volume of Stevenson's "Birds of Norfolk."

COLLARED PETREL. *Æstrelata torquata* (Macgillivray).

Length, 11·5 in. ; bill, 1·3 in. ; wing, 8·75 in. ; tarsus, 1 in.

Hab. Western Pacific Ocean ; New Hebrides ; and Fiji Islands.

One in Cardigan Bay, between Aberystwith and Aberaeron, Dec. 1889 : Harting, *Zool.*, 1890, p. 454. Identified by O. Salvin, and exhibited at a meeting of the Linnean Society, Nov. 6, 1890 ; Salvin, *Ibis*, 1891, p. 411, with coloured plate ; Selater, *tom. cit.*, p. 477.

Obs. This species was described by John Macgillivray, who found it in the New Hebrides, *Zool.*, 1860, p. 7133, and was named by him *Procellaria torquata*. Having adopted this specific name in the *Zoologist*, 1890, when reporting the specimen above mentioned, it will perhaps be less confusing to retain it here than to change it to *brevipes*, Peale, which, it seems, was bestowed some years previously. See Salvin, "Cat. Birds Brit. Mus.," vol. xxv. p. 408. The specimen in question, purchased by Mr. J. W. Willis Bund, and presented by him to the British Museum, is figured by Mr. Saunders in the second edition of his "Manual," as well as in *The Ibis* for 1891, as above noted.

WILSON'S PETREL. *Procellaria wilsoni*, Bonaparte.

Length, 6·75 in. ; bill, 0·7 in. ; wing, 6 in. ; tarsus, 1·5 in.

Hab. Antarctic Ocean, breeding on Kerguelen Land ; west coast of Africa to the Azores, and northwards to the

British Islands. In the North Atlantic common along the American coasts, visiting the West Indies and Mexico.

Two, English Channel: Jenyns, "Man. Brit. Vert. An.," p. 286; Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 668.

Seen in abundance off the Land's End, May 1838: Gould, *Proc. Zool. Soc.*, 1839, p. 139.

One, Polperro, Cornwall, Nov. 1838: Couch, *Trans. Linn. Soc.*, vol. xviii. p. 688; "Cornish Fauna," ii. p. 70; Rodd, "Birds of Cornwall," p. 185.

One, Norfolk, spring 1839: Yarrell (*fide* Buxton), *op. cit.* but considered doubtful by Stevenson.

One, Cumberland: Yarrell (*fide* Heysham), *op. cit.*

One said to have been killed on the Irish coast, August 1840: Thompson, "Nat. Hist. Irel. (Birds)," vol. iii. p. 417; Ussher, "Birds of Ireland," p. 388.

One, Sussex: Bond, *Zool.*, 1843, p. 148; Yarrell, *op. cit.*

One on the Avon, Sutton Benger, Wilts, Nov. 2, 1849: Marsh, *Zool.*, 1859, p. 6492.

One, Freshwater, Isle of Wight, Nov. 1863: Delme Radcliffe, *Field*, Nov. 28, 1863; *Zool.*, 1864, p. 8892.

One near Aldeburgh, Suffolk, "some years since" (1871): Hele, "Notes about Aldeburgh," p. 176. In the possession of Col. Thelluson.

One near Halifax, Yorkshire, Nov. 1874: Eagle Clarke, "Handbook Yorks. Vert.," p. 85. In the collection of Mr. Christopher Ward.

One picked up dead at Freshwater, Isle of Wight, autumn 1888: Gurney, *Zool.*, 1889, p. 150.

One shot on Lough Erne, co. Fermanagh, Oct. 1, 1891: Williams, *Zool.*, 1891, p. 428.

One picked up alive, Dunmurry, co. Antrim, Oct. 2, 1891: Patterson, *Field*, Oct. 10, 1891; *Zool.*, 1891, p. 427.

One caught in a net in Jura after a gale, Oct. 1, 1891: H. Evans, *Ann. Scot. Nat. Hist.*, 1892, p. 18. The first known instance of its occurrence in Scotland.

Obs. This little Petrel was described by Wilson as *Procellaria pelagica*, but that specific name having been already bestowed by Linnæus on the common Storm Petrel, Bonaparte proposed, in 1823, to name it *Procellaria wilsoni*, in honour of Wilson. It was subsequently discovered that three years previously, viz., in 1820, Kuhl had named it *Procellaria oceanica*. Thus it stood with many writers, although some preferred *Thalassidroma oceanica*, until 1840, when Keyserling and Blasius established a new genus for its reception, *Oceanites*, and it thus came to be known as *Oceanites oceanica*, thus superseding the generic name given by Linnæus and the specific name bestowed by Bonaparte, besides depriving Wilson of the compliment deservedly intended for him. This furnishes an illustration of the way in which species get so disguised under new names as to become unrecognisable. For the last thirty years I have known this bird as *Procellaria wilsoni*, and accordingly I prefer to retain that name, which stands in the former edition of this "Handbook." An interesting account of the nesting haunts of Wilson's Petrel, as observed on Kerguelen Land, is given by the Rev. A. E. Eaton in the "Report on the Transit of Venus Expedition," *Phil. Trans.*, vol. clxviii. p. 133. Kerguelen Land, in the extreme south of the Indian Ocean, is the only known breeding-place of this bird, though in its wanderings it is well-nigh cosmopolitan, being found on both sides of the Atlantic, on the Pacific coast, in the Indian Ocean, and on the coasts of

Africa and Australia. It is reported that the Antarctic expedition under Mr. Borchgrevink found this petrel breeding in Victoria Land. If so, this is the farthest point south at which any species of Australian bird has been found nesting. See Campbell, "Nests and Eggs of Australian Birds," 1901, vol. ii. p. 870.

BULWER'S PETREL. *Procellaria bulweri*, Jardine.
Length, 11 in.; bill, 1·2 in.; wing, 7·7 in.; tarsus, 1 in.

Hab. Madeira and adjacent islands.

One found dead on the Ure at Tanfield, Yorkshire, May 8, 1837: Gould, "Birds of Europe," pt. xxii. fig.; Yarrell, "Hist. Brit. Birds," 3rd ed., vol. iii. p. 664. In the York Museum.

Obs. The solitary specimen on which depends the claim of this species to rank as a rare straggler to the British Islands happens to have a satisfactory pedigree. Lost sight of for fifty years, it was rescued from oblivion in 1887 through the efforts of Mr. Eagle Clarke, and was then placed in the Museum at York. On exhibiting it at a meeting of the Zoological Society in Nov. 1887, Prof. Newton took occasion to relate its history, and his remarks on the subject have been reproduced in *The Zoologist* for 1888, p. 230.

FRIGATE PETREL. *Pelagodroma marina* (Latham).
Length, 8 in.; bill, 0·9 in.; wing, 5·8 in.; tarsus, 1·6 in.

Hab. An extensive range in the Southern Hemisphere. The most northerly point reached prior to 1890

was the Canaries, where it has been several times identified, and may possibly breed there.

One washed up dead on the sands after a storm, Walney Island, Morecambe Bay, Nov. 1890: Macpherson, *Ibis*, 1891, p. 602; and "Fauna of Lakeland," p. 457, with a coloured plate.

One, Island of Colonsay, Scotland, Jan. 1, 1897: Eagle Clarke, *Ann. Scot. Nat. Hist.*, 1897, p. 88, and *Knowledge*, March 1897. Preserved in the Museum of Science and Art, Edinburgh.

Obs. In reporting the acquisition of this specimen, which proved to be immature, Mr. Eagle Clarke observed that the weather immediately preceding this bird's visit to the west coast of Scotland was characterised by the prevalence of severe gales from the south-west.

SUMMARY

FORMING

A NEW LIST OF BRITISH BIRDS

SYSTEMATICALLY ARRANGED.

NOTE.—*Those species to which an asterisk is prefixed are regarded as having no sufficient claim to be considered British.*

Order I. **ACCIPITRES**

Fam. **VULTURIDÆ.**

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

**Gyps fulvus* (Gmel.).

**Neophron percnopterus*
(Linn.).

Fam. **FALCONIDÆ.**

Aquila chrysaëtus (Linn.). **Aquila nævia* (Gmel.).

Haliaëtus albicilla (Linn.).

Pandion haliaëtus (Linn.).

Falco peregrinus, Gmel.

Falco gyrfalco, Linn.

„ *subbuteo*, Linn.

„ *candicans*, Gmel.

„ *æsalon*, Gmel.

„ *islandus*, Gmel.

„ *tinnunculus*, Linn.

„ *vespertinus*, Linn.

Accipiter nisus (Linn.).

„ *cenchris*, Naum.

Astur palumbarius (Linn.). **Astur atricapillus* (Wils.).

RESIDENTS AND MIGRANTS.

Milvus regalis, *Roux*.

Buteo vulgaris, *Leach*.

„ *lagopus* (*Gmel.*).

Pernis apivorus (*Linn.*).

Circus æruginosus (*Linn.*).

„ *cyaneus* (*Linn.*).

„ *cineraceus* (*Mont.*).

RARE VISITANTS.

Milvus migrans (*Bodd.*).

* *Elanus cæruleus* (*Desfont.*).

* *Nauclerus furcatus* (*Linn.*).

* *Buteo lineatus* (*Gmel.*).

Fam. STRIGIDÆ.

Strix flammea, *Linn.*

Syrnium aluco (*Linn.*).

Asio otus (*Linn.*).

„ *brachyotus* (*Forst.*).

Nyctea scandiaca (*Linn.*).

Surnia funerea (*Linn.*).

Carine noctua (*Scop.*).

* *Scops asio* (*Linn.*).

„ *giu* (*Scop.*).

Nyctala tengmalmi (*Gmel.*).

Bubo maximus, *Flem.*

Order II. PASSERES

Fam. LANIIDÆ.

Lanius excubitor, *Linn.*

„ *collurio*, *Linn.*

„ *rufus*, *Gmel.*

Lanius major, *Pall.*

„ *minor*, *Gmel.*

* „ *meridionalis*, *Temm.*

Fam. MUSCICAPIDÆ.

Muscicapa grisola, *Linn.*

„ *atricapilla*, *Linn.*

Muscicapa parva, *Bechst.*

Fam. ORIOLIDÆ.

Oriolus galbula, *Linn.*

Fam. CINCLIDÆ.

Cinclus aquaticus, *Bechst.*

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Fam. PETROCINCLIDÆ.

*Petrocincla saxatilis (*Linn.*).

Fam. TURDIDÆ.

Turdus viscivorus, <i>Linn.</i>	Turdus, varius, <i>Pall.</i>
„ musicus, <i>Linn.</i>	„ atrigularis, <i>Temm.</i>
„ pilaris, <i>Linn.</i>	„ sibiricus, <i>Pall.</i>
„ iliacus, <i>Linn.</i>	„ migratorius, <i>Linn.</i>
„ merula, <i>Linn.</i>	
„ torquatus, <i>Linn.</i>	

Fam. PYCNONOTIDÆ.

*Pycnonotus capensis (*Linn.*).

Fam. SYLVIIDÆ.

Accentor modularis (<i>Linn.</i>).	Accentor alpinus, <i>Bechst.</i>
Erythacus rubecula (<i>Linn.</i>).	Cyanecula suecica (<i>Linn.</i>).
Ruticilla phoenicurus (<i>Linn.</i>).	
„ tithys (<i>Scop.</i>).	
Saxicola rubicola (<i>Linn.</i>).	Saxicola stapazina, <i>Vieillot.</i>
„ rubetra (<i>Linn.</i>).	* „ isabellina, <i>Rüppell.</i>
„ œnanthe (<i>Linn.</i>).	* „ deserti, <i>Rüppell.</i>
Acrocephalus streperus	Acrocephalus aquaticus
(<i>Vieill.</i>).	(<i>Gmel.</i>).
„ palustris	
(<i>Bechst.</i>).	
„ phragmitis	
(<i>Bechst.</i>).	
„ arundinaceus	
(<i>Linn.</i>).	
Locustella nævia (<i>Bodd.</i>).	
„ luscinioides (<i>Savi.</i>).	
	Aëdon galactodes (<i>Temm.</i>).

RESIDENTS AND MIGRANTS.	RARE VISITANTS.
Philomela lusciniæ (<i>Linn.</i>).	
Sylvia atricapilla (<i>Linn.</i>).	Sylvia orphea, <i>Temm.</i>
„ hortensis (<i>Gmel.</i>).	„ nisoria, <i>Bechst.</i>
„ cinerea, <i>Lath.</i>	* „ subalpina, <i>Bonelli.</i>
„ curruca (<i>Linn.</i>).	
„ undata, <i>Bodd.</i>	
Phylloscopus sibilatrix	Phylloscopus superciliosus
(<i>Bechst.</i>).	(<i>Gmel.</i>).
„ trochilus (<i>Linn.</i>).	* „ proregulus
	(<i>Pall.</i>).
„ rufus (<i>Bechst.</i>).	* „ viridanus,
	<i>Blyth.</i>
	* „ schwarzi
	(<i>Radde.</i>).
	Hypolais icterina (<i>Vieill.</i>).
	„ polyglotta (<i>Vieill.</i>).
	*Vireo olivaceus (<i>Vieillot.</i>).
Regulus cristatus, <i>Koch.</i>	*Regulus calendula (<i>Linn.</i>).
„ ignicapillus (<i>Brehm.</i>).	

Fam. TROGLODYTIDÆ.

Troglodytes parvulus, *Koch.*

Fam. CERTHIIDÆ.

Certhia familiaris, *Linn.* Tichodroma muraria
(*Linn.*).

Fam. SITTIDÆ.

Sitta cæsia, *Meyer.*

Fam. PARIDÆ.

Parus major, *Linn.*
„ cæruleus, *Linn.*
„ cristatus, *Linn.*
„ ater, *Linn.*

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Parus palustris, *Linn.*

Acredula caudata (*Linn.*).

Fam. PANURIDÆ.

Panurus biarmicus (*Linn.*).

Fam. AMPELIDÆ.

Ampelis garrulus, *Linn.*

Fam. MOTACILLIDÆ.

Motacilla lugubris, *Temm.*

Motacilla cinereicapilla,

„ *alba*, *Linn.*

Savi.

„ *sulphurea*, *Bechst.*

„ *flava*, *Linn.*

„ *raii* (*Bonap.*).

Anthus arboreus, *Bechst.*

Anthus campestris (*Linn.*).

„ *pratensis* (*Linn.*).

„ *cervinus* (*Pall.*).

„ *obscurus* (*Lath.*).

„ *spipoletta* (*Linn.*).

„ *richardi*, *Vieill.*

Fam. ALAUDIDÆ.

Alauda arvensis, *Linn.*

Alauda cristata, *Linn.*

„ *arborea*, *Linn.*

„ *brachydactyla*, *Leisl.*

Otocorys alpestris (*Linn.*).

„ *calandra*, *Linn.*

„ *sibirica*, *Gmel.*

Fam. EMBERIZIDÆ.

Plectrophanes nivalis (*Linn.*).

„ *lapponica* (*L.*).

Emberiza miliaria, *Linn.*

Emberiza pusilla, *Pall.*

„ *schœnielus*, *Linn.*

„ *rustica*, *Pall.*

„ *citrinella*, *Linn.*

„ *melanocephala*,

„ *cirlus*, *Linn.*

Scop.

„ *hortulana*, *Linn.* *

„ *cioides*, *Brandt.*

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Fam. FRINGILLIDÆ.

Fringilla cœlebs, <i>Linn.</i>	Fringilla serinus, <i>Linn.</i>
„ montifringilla (<i>L.</i>).	* „ canicollis (<i>Sw.</i>).
Carduelis elegans, <i>Stephens.</i>	*Carduelis tristis (<i>Linn.</i>).
„ spinus (<i>Linn.</i>).	
Linota cannabina (<i>Linn.</i>).	Linota exilipes (<i>Coues.</i>).
„ flavirostris (<i>Linn.</i>).	
„ linaria (<i>Linn.</i>).	
„ rufescens (<i>Vieill.</i>).	
Passer montanus (<i>Linn.</i>).	*Zonotrichia albicollis
„ domesticus (<i>Linn.</i>).	(<i>Gmel.</i>).
Coccothraustes chloris (<i>L.</i>).	
„ vulgaris, <i>Pallas.</i>	
Pyrrhula europæa (<i>Vieill.</i>).	*Pyrrhula erythrina (<i>Pall.</i>).
	„ enucleator (<i>Linn.</i>).
Loxia curvirostra, <i>Linn.</i>	Loxia pityopsittacus, <i>Bechst.</i>
	„ bifasciata, <i>Brehm.</i>
	„ leucoptera, <i>Gmel.</i>

Fam. ICTERIDÆ.

*Ageleus phœniceus, *Vieill.**Sturnella magna (*Linn.*).

Fam. STURNIDÆ.

Sturnus vulgaris, *Linn.*Pastor roseus (*Linn.*).

Fam. CORVIDÆ.

Pyrrhocorax graculus (*L.*). Nucifraga caryocatactes (*L.*).Corvus corax, *Linn.*„ corone, *Linn.*„ cornix, *Linn.*„ frugilegus, *Linn.*

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Corvus monedula, *Linn.*

Pica rustica (*Scopoli*).

Garrulus glandarius (*Linn.*).

Fam. HIRUNDINIDÆ.

Hirundo rustica, *Linn.*

**Hirundo purpurea*, *Linn.*

„ *urbica*, *Linn.*

* „ *bicolor*, *Vieill.*

Cotile riparia (*Linn.*).

ORDER III. PICARIÆ

Fam. CYPSELIDÆ.

Cypselus apus (*Linn.*).

Cypselus melba, *Ill.*

**Chætura caudacuta* (*Lath.*).

Fam. CAPRIMULGIDÆ.

Caprimulgus europæus, *Linn.* *Caprimulgus ruficollis*, *Tem.*

„ *ægyptius*, *Licht.*

Fam. CUCULIDÆ.

Cuculus canorus, *Linn.*

Coccyzus glandarius (*L.*).

**Coccyzus americanus* (*L.*).

* „ *erythrophthalmus*
(*Wilson*).

Fam. UPUPIDÆ.

Upupa epops, *Linn.*

Fam. CORACIIDÆ.

Coracias garrula, *Linn.*

Fam. MEROPIDÆ.

Merops apiaster, *Linn.*

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Fam. ALCEDINIDÆ.

Alcedo ispida, *Linn.**Ceryle alcyon (*Linn.*).

Fam. PICIDÆ.

Picus viridis, *Linn.*Picus martius, *Linn.*Dendrocopus major (*Linn.*). *Dendrocopus medius (*L.*).„ minor (*Linn.*). * „ villosus (*L.*).* „ pubescens (*L.*).*Colaptes auratus (*Linn.*).Jynx torquilla, *Linn.*

ORDER IV. COLUMBÆ

Fam. COLUMBIDÆ.

Columba palumbus, *Linn.**Columba migratoria, *Linn.*„ cenas, *Linn.*„ livia, *Temm.*Turtur communis, *Selby.**Turtur orientalis, *Lath.*

ORDER V. PTEROCLIDES

Fam. PTEROCLIDÆ.

Syrnhaptes paradoxus (*Pall.*).

ORDER VI. GALLINÆ

Fam. TETRAONIDÆ.

Tetrao urogallus, *Linn.*„ tetrax, *Linn.*Lagopus scoticus (*Lath.*).„ mutus (*Montin.*).

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Fam. PHASIANIDÆ.

Phasianus colchicus, *Linn.*

Perdix cinerea, *Lath.*

Caccabis rufa (*Linn.*). **Caccabis petrosa* (*Gmel.*).

Coturnix communis, *Bonn.* **Ortyx virginianus* (*Linn.*).

Fam. TURNICIDÆ.

**Turnix sylvatica* (*Desfont.*).

ORDER VII. **ALECTORIDES**

Fam. GRUIDÆ.

Grus cinerea, *Bechst.*

Fam. OTIDIDÆ.

Otis tarda, *Linn.*

Otis macqueeni, *Gray.*

„ *tetrax*, *Linn.*

ORDER VIII. **LIMICOLÆ**

Fam. CHARADRIIDÆ.

Edicnemus crepitans, *Temm.*

Cursorius gallicus, *Gmel.*

Glareola pratincta (*Linn.*).

Charadrius pluvialis, *Linn.* **Charadrius fulvus*, *Gmel.*

Squatarola helvetica (*Linn.*). * „ *dominicus*, *Müll.*

Vanellus cristatus, *Meyer.* **Chætusia gregaria* (*Pall.*).

Eudromias morinellus (*Linn.*). **Eudromias asiaticus* (*Pall.*).

Ægialitis hiaticula (*Linn.*). *Ægialitis curonica* (*Gmel.*).

„ *cantiana* (*Lath.*). * „ *vocifera* (*Linn.*).

Streptilas interpres (*Linn.*).

Hæmatopus ostralegus (*Linn.*).

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Fam. SCOLOPACIDÆ.

Recurvirostra avocetta, <i>Linn.</i>	Himantopus candidus, <i>Bon.</i>
Totanus canescens (<i>Gmel.</i>)	Totanus flavipes (<i>Gmel.</i>)
„ fuscus (<i>Linn.</i>)	„ solitarius (<i>Wils.</i>)
„ calidris (<i>Linn.</i>)	
„ ochropus (<i>Linn.</i>)	
„ glareola (<i>Linn.</i>)	
Machetes pugnax (<i>Linn.</i>)	
	Actiturus bartramius (<i>Wils.</i>)
	Tringites rufescens (<i>Vieill.</i>)
Tringoides hypoleucus (<i>L.</i>)	Tringoides macularius (<i>L.</i>)
Tringa canutus, <i>Linn.</i>	Tringa maculata, <i>Vieill.</i>
„ subarquata (<i>Güld.</i>)	„ acuminata, <i>Horsf.</i>
„ maritima, <i>Gmel.</i>	„ platyrhyncha, <i>Temm.</i>
„ alpina, <i>Linn.</i>	„ fuscicollis, <i>Vieill.</i>
„ minuta, <i>Leisl.</i>	„ bairdi (<i>Coues.</i>)
„ temminckii, <i>Leisl.</i>	„ pusilla, <i>Wils.</i>
Calidris arenaria (<i>Linn.</i>)	
Phalaridopus fulicarius (<i>L.</i>)	
„ hyperboreus (<i>L.</i>)	
Scolopax rusticula, <i>Linn.</i>	
Gallinago major (<i>Gmel.</i>)	*Gallinago wilsoni, <i>Temm.</i>
„ media, <i>Leach.</i>	
„ gallinula (<i>Linn.</i>)	
	Macrorhamphus griseus
	(<i>Gmel.</i>)
Limosa lapponica (<i>Linn.</i>)	
„ aegocephala (<i>Linn.</i>)	
Numenius arquatus (<i>Linn.</i>)	Numenius borealis (<i>Forst.</i>)
„ phaeopus (<i>Linn.</i>)	

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Order IX. **HERODIONES**

Fam. IBIDIDÆ.

Ibis falcinellus (*Gmel.*).

Fam. PLATALEIDÆ.

Platalea leucorodia, *Linn.*

Fam. CICONIIDÆ.

Ciconia alba, *Bechst.*

Ciconia nigra (*Linn.*).

Fam. ARDEIDÆ.

Ardea cinerea, *Linn.*

Ardea alba, *Linn.*

„ *purpurea*, *Linn.*

„ *garzetta*, *Linn.*

„ *ralloides*, *Scop.*

„ *russata*, *Wagl.*

Nycticorax griseus (*Linn.*).

**Butorides virescens* (*Linn.*).

Botaurus stellaris (*Linn.*).

Botaurus lentiginosus

„ *minutus* (*Linn.*).

(*Mont.*).

Order X. **FULICARIÆ**

Fam. RALLIDÆ.

Rallus aquaticus, *Linn.*

Crex pratensis *Bechst.*

„ *porzana* (*Linn.*).

**Crex carolina* (*Linn.*).

„ *bailloni* (*Vieill.*).

„ *pusilla* (*Gmel.*).

Gallinula chloropus (*Linn.*).

Fulica atra, *Linn.*

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Order XI. **ANSERES**

Fam. ANATIDÆ.

Cygnus olor, <i>Gmel.</i>	*Cygnus americanus, <i>Sharpl.</i>
„ musicus, <i>Bechst.</i>	* „ buccinator, <i>Rich.</i>
„ minor, <i>Keys. & Bl.</i>	
Anser ferus (<i>Gmel.</i>)	*Anser albatius, <i>Cassin.</i>
„ segetum (<i>Gmel.</i>)	„ erythropus (<i>Linn.</i>)
„ brachyrhynchus, Baill.	
„ albifrons (<i>Gmel.</i>)	
Bernicla leucopsis (<i>Bechst.</i>)	Bernicla ruficollis, <i>Pall.</i>
„ brenta (<i>Pallas.</i>)	
„ canadensis (<i>Linn.</i>)	
Chenalopex ægyptiacus (<i>Linn.</i>)	
	*Plectropterus gambensis (<i>Linn.</i>)
Tadorna vulpanser, <i>Flem.</i>	*Tadorna rutila (<i>Pall.</i>)
Anas boscas, <i>Linn.</i>	*Anas americana, <i>Gmel.</i>
„ strepera, <i>Linn.</i>	
„ clypeata, <i>Linn.</i>	
„ acuta, <i>Linn.</i>	
„ penelope, <i>Linn.</i>	
Querquedula crecca (<i>Linn.</i>)	*Q. carolinensis (<i>Gmel.</i>)
„ circia (<i>Linn.</i>)	*Q. discors (<i>Linn.</i>)
Fuligula ferina (<i>Linn.</i>)	Fuligula rufina (<i>Pall.</i>)
„ ferruginea (<i>Gmel.</i>)	
„ marila (<i>Linn.</i>)	
„ cristata (<i>Leach.</i>)	
Clangula glaucion (<i>Linn.</i>)	Clangula albeola (<i>Linn.</i>)
Harelda glacialis (<i>Linn.</i>)	Histrionicus torquatus, <i>Bp.</i>
Ædemia nigra (<i>Linn.</i>)	Ædemia perspicillata (<i>Linn.</i>)
„ fusca (<i>Linn.</i>)	

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

Somateria mollissima (*L.*).Somateria spectabilis (*L.*).„ stelleri (*Pall.*).Mergus albellus, *Linn.*Mergus cucullatus, *Linn.*„ serrator, *Linn.*„ merganser, *Linn.*

ORDER XII. PYGOPODES

Fam. COLYMBIDÆ.

Colymbus glacialis, *Linn.*

*Colymbus adamsi.

„ arcticus, *Linn.*„ septentrionalis,
Linn.

Fam. PODICIPEDIDÆ.

Podiceps cristatus (*Linn.*).„ griseigena (*Bodd.*).„ auritus (*Linn.*).„ nigricollis (*Brehm.*).„ minor (*Gmel.*).

Fam. ALCIDÆ.

Fratercula arctica (*Linn.*).*Fratercula glacialis (*Leach.*).Mergulus alle (*Linn.*).Alca torda, *Linn.*„ impennis, *Linn.*Uria troile (*Linn.*).Uria brünnichii (*Sabine.*).„ grylle (*Linn.*).

ORDER XIII. STEGANOPODES

Fam. PELECANIDÆ.

Phalacrocorax carbo (*Linn.*).„ cristatus (*Faber.*).Sula bassana (*Linn.*).

RESIDENTS AND MIGRANTS.

RARE VISITANTS.

ORDER XIV. GAVIÆ

Fam. LARIDÆ.

<i>Sterna fluviatilis</i> , <i>Naum.</i>	<i>Sterna anglica</i> , <i>Mont.</i>
„ <i>hirundo</i> , <i>Linn.</i>	„ <i>caspia</i> , <i>Pall.</i>
„ <i>dougalli</i> , <i>Mont.</i>	„ <i>fuliginosa</i> , <i>Gmel.</i>
„ <i>cantiaca</i> , <i>Gmel.</i>	* „ <i>anæsthesia</i> , <i>Scopoli.</i>
„ <i>minuta</i> , <i>Linn.</i>	* „ <i>stolida</i> , <i>Linn.</i>
<i>Hydrochelidon nigra</i> (<i>Linn.</i>).	<i>H. leucoptera</i> , <i>Meisn.</i>
	„ <i>hybrida</i> , <i>Pall.</i>
<i>Rissa tridactyla</i> , <i>Linn.</i>	<i>Xema sabini</i> (<i>Leach</i>).
<i>Larus minutus</i> , <i>Pall.</i>	<i>Larus ichthyaetus</i> , <i>Pall.</i>
„ <i>ridibundus</i> , <i>Linn.</i>	„ <i>melanocephalus</i> , <i>Natt.</i>
„ <i>canus</i> , <i>Linn.</i>	„ <i>philadelphia</i> , <i>Ord.</i>
„ <i>leucopterus</i> , <i>Faber.</i>	
	<i>Rodostethia rossii</i> , <i>Richards.</i>
„ <i>argentatus</i> , <i>Gmel.</i>	<i>Pagophila eburnea</i> , <i>Phipps.</i>
„ <i>glaucus</i> , <i>Gmel.</i>	
„ <i>marinus</i> , <i>Linn.</i>	
„ <i>fuscus</i> , <i>Linn.</i>	
<i>Lestris catarractes</i> (<i>Linn.</i>).	
„ <i>crepidatus</i> (<i>Gmel.</i>).	
„ <i>parasiticus</i> (<i>Linn.</i>).	
„ <i>pomatorhinus</i> , <i>Temm.</i>	

ORDER XV. TUBINARES

Fam. PROCELLARIIDÆ.

<i>Puffinus anglorum</i> (<i>Temm.</i>).	* <i>Puffinus assimilis</i> , <i>Gould.</i>
„ <i>yelkouanus</i> (<i>Acerbi</i>).	„ <i>griseus</i> (<i>Gmel.</i>).
„ <i>major</i> , <i>Faber.</i>	
<i>Fulmarus glacialis</i> (<i>Linn.</i>).	* <i>Æstrelata hæsitata</i> (<i>Kuhl.</i>).
	* „ <i>torquata</i> (<i>Macg.</i>).
<i>Procellaria pelagica</i> (<i>Linn.</i>).	<i>Procellaria wilsoni</i> , <i>Bonap.</i>
„ <i>leachii</i> (<i>Temm.</i>).	* „ <i>bulweri</i> , <i>Jard.</i>
	* <i>Pelagodroma marina</i> (<i>Lath.</i>).

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